

**UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MICHIGAN
SOUTHERN DIVISION**

MAGNA DONNELLY CORPORATION,)	
A/K/A DONNELLY CORPORATION,)	
)	
Plaintiff)	Case No. 2:07-cv-10688
)	
v.)	
)	
3M COMPANY,)	Honorable Victoria A. Roberts
)	
Defendant.)	

)	JURY TRIAL DEMANDED
3M COMPANY,)	
)	
Counter-Plaintiff)	
)	
v.)	
)	
MAGNA DONNELLY CORPORATION ¹ ,)	
A/K/A DONNELLY CORPORATION,)	
)	
Counter-Defendant)	

**3M'S ANSWER TO FIRST AMENDED COMPLAINT, AFFIRMATIVE DEFENSES,
AND COUNTERCLAIMS**

3M Company ("3M") hereby answers the allegations of the First Amended Complaint of Plaintiff ("Magna Donnelly") (Dkt. 42) and asserts counterclaims as follows:

¹ Plaintiff filed its Complaint as Magna Donnelly Corporation a/k/a Donnelly Corporation, as reflected in the official case caption. Plaintiff's corporate name has apparently changed to Magna Mirrors of America, Inc. since it filed this lawsuit; however, Plaintiff has not moved the Court to change the caption to reflect that change. To the extent Plaintiff so moves the Court, 3M brings its counterclaims against the Plaintiff in this lawsuit, by whatever name.

THE PARTIES

1. 3M admits that Magna Mirrors of America, Inc. is a corporation organized and existing under the laws of the State of Michigan, having a registered address of 30600 Telegraph Road, Bingham Michigan, 48025. 3M lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations of paragraph 1, and accordingly denies them.
2. 3M admits the allegations of paragraph 2.
3. 3M admits that it is doing business within the State of Michigan and within the Eastern District of Michigan, and is engaged in continuous and systematic business within the Eastern District of Michigan. 3M denies the remaining allegations of paragraph 3, and specifically denies infringing any Magna Donnelly patent.

JURISDICTION AND VENUE

4. 3M admits that the Complaint purports to recite an action involving a federal question. 3M further admits this Court has jurisdiction over the subject matter of this case. 3M denies the remaining allegations of paragraph 4.
5. 3M admits that the Complaint purports to recite an action arising under the Patent Laws of the United States. 3M further admits this Court has jurisdiction over the subject matter of this case pursuant to 28 U.S.C. §§ 1338 and 1331. 3M denies the remaining allegations of paragraph 5.

COUNT 1

**INFRINGEMENT OF THE '236 PATENT
(VIOLATION OF 35 U.S.C. §§ 101 AND 271)**

6. 3M repeats and realleges its answers to paragraphs 1 through 6 as if fully set forth herein.

7. Plaintiff omitted Paragraph 7 in its Amended Complaint, and there is nothing to admit or deny.
8. 3M admits that, on its face, U.S. Patent No. 5,587,236 (the '236 Patent") is titled "Interior Rear View Mirror Mounting System Utilizing One-Package Structural Adhesive." 3M denies that the '236 Patent was legally issued. 3M denies that a Reexamination Certificate was legally issued.
9. 3M is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 9 of the Complaint and therefore denies the same.
10. 3M denies the allegations of paragraph 10.
11. 3M denies the allegations of paragraph 11.
12. 3M denies the allegations of paragraph 12.
13. 3M denies the allegations of paragraph 13.
14. 3M denies the allegations of paragraph 14.
15. 3M denies the allegations of paragraph 15.
16. 3M denies the allegations of paragraph 16.
17. 3M denies the allegations of paragraph 17.
18. 3M denies the allegations of paragraph 18.
19. 3M denies that Magna Donnelly is entitled to any judgment against 3M and further answers that:
 - A. 3M denies that any injunction is warranted;
 - B. 3M denies that any injunction is warranted;
 - C. 3M denies that Magna Donnelly is entitled to an accounting;

D. 3M denies that there has been infringement by 3M under any alleged theory of infringement and denies that Magna Donnelly is entitled to damages of any kind;

E. 3M denies that there has been any infringement, willful or otherwise, by 3M and denies that Magna Donnelly is entitled to treble damages;

F. 3M denies that Magna Donnelly is entitled to prejudgment interest and costs;

G. 3M denies that this case is exceptional as to Magna Donnelly's claims and denies that Magna Donnelly is entitled to attorneys' fees.

3M'S AFFIRMATIVE DEFENSES

Further answering Magna Donnelly's Complaint and as additional defenses thereto, 3M asserts the following affirmative defenses, without admitting any allegation of the Complaint not otherwise admitted and without assuming the burden of proof when such burden would otherwise be on Magna Donnelly.

FIRST AFFIRMATIVE DEFENSE

NON-INFRINGEMENT

20. 3M has not infringed, either literally or under the doctrine of equivalents, any claim of the '236 Patent.
21. 3M has not contributed to the infringement of any claim of the '236 Patent.
22. 3M has not induced the infringement of any claim of the '236 Patent.

SECOND AFFIRMATIVE DEFENSE

INVALIDITY

23. Each claim of the '236 Patent is invalid for failure to meet the conditions of patentability and failure to comply with one or more of the requirements of the Patent Laws of the United States, including without limitation 35 U.S.C. §§ 102, 103 and/or 112.

THIRD AFFIRMATIVE DEFENSE

UNENFORCEABILITY

24. The '236 Patent is unenforceable due to inequitable conduct by the applicants and their attorneys in prosecuting the '236 Patent before the United States Patent and Trademark Office, for the reasons explained below in 3M's Counterclaims.

FOURTH AFFIRMATIVE DEFENSE

PROSECUTION ESTOPPEL

25. By reason of the proceedings held in the United States Patent and Trademark Office during the prosecution of Application Serial No. 07/773,236 ("the '236 application"), during the prosecution of the application upon which the '236 Patent issued, and during the prosecution of the reexamination of the '236 Patent; and in particular, by reason of representations, arguments and admissions made by, or on behalf of, the applicants thereof, in the course of such proceedings, in order to meet and/or overcome objections, rejections or requirements of the United States Patent and Trademark Office, and in order to induce the issuance of said patent, Magna Donnelly is estopped from maintaining that any claims of the '236 Patent have such scope or are entitled to such construction so as to cause said patent to cover or include any accused activity by 3M.

FIFTH AFFIRMATIVE DEFENSE

LACHES, ACQUIESCENCE AND ESTOPPEL

26. Magna Donnelly's claims are barred in whole or in part by the doctrines of laches, acquiescence and/or estoppel.

SIXTH AFFIRMATIVE DEFENSE

LICENSE

27. On information and belief, Magna Donnelly's claims are barred in whole or in part by the defense of license.

SEVENTH AFFIRMATIVE DEFENSE

FAILURE TO STATE A CLAIM

28. Magna Donnelly has failed to state a claim upon which relief can be granted.

EIGHTH AFFIRMATIVE DEFENSE

LACK OF STANDING

29. On information and belief, Magna Donnelly lacks standing to sue under the '236 Patent.

DEMAND FOR JURY TRIAL

30. Pursuant to Fed. R. Civ. P. 38(b), 3M respectfully demands a trial by jury of all issues triable by a jury relating to the Complaint, Answer and affirmative defenses.

COUNTERCLAIMS

3M Company ("3M") hereby alleges as follows for its Counterclaims against Plaintiff ("Magna Donnelly"):

NATURE OF LAWSUIT

1. This is an action for a declaration of patent noninfringement, patent invalidity and patent unenforceability arising under the Declaratory Judgment Act, 28 U.S.C. §§ 2201, et seq., and the Patent Laws of the United States, 35 U.S.C. §§ 1, et seq.

PARTIES

2. 3M is a Delaware corporation having a principal place of business at 3M Center, St. Paul, Minnesota 55144.

3. Plaintiff (“Magna Donnelly”) is a corporation organized and existing under the laws of the State of Michigan, having a registered address of 30600 Telegraph Road, Bingham Farms, Michigan 48025. Magna Donnelly is also doing business under the name “Donnelly Corporation.”

JURISDICTION

4. This Court has jurisdiction over the subject matter of this Counterclaim under 28 U.S.C. § 1338(a). By virtue of the Complaint filed by Magna Donnelly in this action, there is an actual and justiciable controversy between 3M and Magna Donnelly concerning the noninfringement, invalidity and unenforceability of U.S. Patent No. 5,587,236 (the ‘236 Patent”). A judicial declaration is necessary and appropriate to resolve this controversy.

BACKGROUND

PROSECUTION ACTIVITIES

5. The ‘236 Patent is a divisional of U.S. Patent Application Serial No. 07/733,236 (the ‘236 application”).
6. The ‘236 application was filed on October 9, 1991 and abandoned on September 26, 1995.
7. The ‘236 application identifies Raj K. Agrawal, Niall R. Lynam and James K. Galer as inventors.
8. The law firm of Price, Heneveld, Cooper, DeWitt & Litton prosecuted the ‘236 application on behalf of the applicants.
9. On September 17, 1992, the examiner responsible for the ‘236 application issued an Office Action rejecting all pending claims under 35 U.S.C. § 103, as being unpatentable over various references.

10. The applicants responded to the September 17, 1992 Office Action for the '236 application on December 9, 1992. In their response, the applicants stated:

Stewart discloses attaching mirrors to automobile windshields with an adhesive selected from a variety of materials including polypropylene resins, various vinyl materials such as polyvinyl chloride, or polyvinyl acetate, various acrylates, epoxy resins and the like.

11. On January 22, 1993, the examiner responsible for the '236 application issued a final Office Action rejecting all claims of the '236 application as obvious under 35 U.S.C. § 103.
12. On July 21, 1993, the applicants filed a notice of appeal in the '236 application. In their notice of appeal, the applicants stated, "Applicants hereby appeal to the Board of Appeals from the decisions of the Examiner dated January 22, 1993; June 4, 1993; and June 28, 1993, rejecting claims 23-34 and 37-46."
13. On September 20, 1993, the applicants filed their Appeal Brief for their appeal of the examiner's rejections in the '236 application (the "September 20, 1993 Appeal Brief").
14. There is no substantive difference between the issued claims in the '236 Patent and the claims the applicants appealed to the Board of Appeals in the '236 application.
15. For example, claims 23 and 37 appealed by the applicants were directed to "a method for attaching a vehicle accessory mounting button to a vehicular windshield during lamination of the windshield panels."
16. Claims 23 and 37 appealed by the applicants required "providing first and second glass windshield panels having a matched compound curvature, said first panel comprising the interior panel of the two, with a polymeric interlayer between said two panels."
17. Claims 23 and 37 appealed by the applicants required "providing a vehicle accessory mounting button."

18. Claim 23 appealed by the applicants required “placing an uncured, non-elastomeric, thermosetting, structural adhesive between said mounting button and said first panel, said adhesive being thermally activated at a temperature greater than about 125° F, said adhesive further having a cure temperature below 325 ° F and a modulus of elasticity at 85° C of at least about 10,000 psi when cured.”
19. Claim 37 appealed by the applicants required “placing an uncured, one-package, thermosetting, structural adhesive film between said mounting button and said first panel, said adhesive being thermally activated at a temperature greater than about 125° F, said adhesive further having a cure temperature below 325° F.”
20. Claims 23 and 37 appealed by the applicants required “subjecting said entire glass panel/polymeric interlayer/glass panel/structural adhesive/mounting button arrangement to sufficient temperature and pressure to cure said structural adhesive and to laminate said windshield panels.”
21. Claim 24 appealed by the applicants read as follows: “[t]he method as set forth in claim 3 further comprising the step of attaching a mirror assembly to said mounting button.”
22. Claim 25 appealed by the applicants read as follows: “[t]he method as set forth in claim 24 wherein said adhesive is a modified epoxy.”
23. Claim 26 appealed by the applicants read as follows: “[t]he method as set forth in claim 25 wherein said adhesive is a blend of a polymeric epoxy reaction product of molecular weight greater than 700, epoxy resins, a dicyanodiamide, a non-volatile amide and n,n’-(methyl-1,3-phenylene) bis (n,n’-dimethyl urea).”
24. Claim 27 appealed by the applicants read as follows: “[t]he method as set forth in claim 26 further comprising the step of contacting said adhesive with a latent accelerator

selected from the group including tolyl bis(dimethyl urea), 2-ethyl-4-methyl-imidazole, and 1-phenyl-3,3-dimethyl urea.”

25. On page 11 of their September 20, 1993 Appeal Brief for the ‘236 application, the applicants stated:

Applicants respectfully disagree and submit that while Stewart does disclose epoxy resins as an adhesive, it is merely one of a litany of possible adhesives with a silicone material being the preferred adhesive.

26. On page 13 of their September 20, 1993 Appeal Brief for the ‘236 application, the applicants stated (underlining in original):

It is not at all obvious, and certainly not prima facie obvious to utilize a nonelastomeric, thermosetting, structural adhesive which is thermally activated at a temperature greater than about 125° F, has a cure temperature below 325° F, and has a modulus of elasticity at 85° C of at least about 10,000 psi when cured, in a process for attaching a vehicle accessory mounting button to a windshield during lamination of the panels forming the windshield.

27. On page 23 of their September 20, 1993 Appeal Brief for the ‘236 application, the applicants stated:

Applicants submit that there is simply no teaching or suggestion of the cure and activation limitations recited in claim 37 for an adhesive film which is gray or black as recited in claim 42.

28. On July 7, 1995, the Board of Patent Appeals and Interferences (the “Board”) issued a Decision on Appeal for Appeal No. 94-1957 (“July 7, 1995 Decision on Appeal”) in the ‘236 application.

29. On page 6 of the July 7, 1995 Decision on Appeal for the ‘236 application, the Board stated:

Based upon the description of the prior art set forth in the opening pages of the appellants’ specification, it was known at the time of their invention to provide first and second windshield panels with a polymeric interlayer in between, to provide an accessory mounting button, to place between the mounting button and the glass an uncured adhesive that is curable under

the same conditions that will cure the polymeric interlayer between the windshield panels, and to subject the entire assembly to sufficient temperature and pressure to cure the button adhesive and to laminate the windshield panels (pages 1 and 2).

30. On page 7 of the July 7, 1995 Decision on Appeal for the '236 application, the Board stated:

Thus, at this point in our analysis, the only subject matter of claim 23 which was not known in the prior art discussed above at the time of the appellants' invention is a thermosetting adhesive having the following characteristics: (1) thermally activated at a temperature greater than about 125 degrees F; (2) a cure temperature below 325 degrees F, and (3) a modulus of elasticity at 85 degrees C of at least 10,000 psi when cured.

31. On page 8 of the July 7, 1995 Decision on Appeal for the '236 application, the Board stated:

There can be no dispute that at the time of the appellants' invention a multitude of adhesives were available, with many different specifications and characteristics, which would have provided an extensive list to one of ordinary skill in the art who was attempting to solve a problem concerning attaching elements together. The Adhesives Handbook provides a compilation of these.

32. On page 9 of the July 7, 1995 Decision on Appeal for the '236 application, the Board stated:

From our perspective, one of ordinary skill in the art, seeking to attach a mirror of greater weight than previously has been attached, would have found it obvious to utilize an adhesive meeting the limitations set forth in step (c) of claim 23. One of ordinary skill in the art must be accorded sufficient knowledge to have recognized that an adhesive that is to be cured simultaneously with the process of laminating the windshield layers must have a thermal activation temperature that is higher than the ambient temperatures expected prior to the curing process, or else it would cure prematurely. In like fashion, the artisan would have recognized that the cure temperature for the attachment adhesive must not exceed that of the windshield lamination process, or else it would not be cured simultaneously therewith. Finally, following the same logic, one of ordinary skill in the art would have selected an adhesive having a modulus of elasticity that would render it capable of accomplishing the task of holding a particular accessory to the degree necessary for a particular application, whether for the broad purpose of holding a heavy load or for a

more specific purpose, such as Steward's [sic, Stewart's] breakaway situation.

33. On pages 9-10 of the July 7, 1995 Decision on Appeal for the '236 application, the Board stated:

In the final analysis, we agree with the examiner that the selection of a suitable adhesive to improve upon those used in the prior art, including that which was specified in claim 23, would have been obvious to one of ordinary skill in this art, in view of the combined teachings of the cited references. There is no evidence of record that tends to indicate that the use of the adhesive specified in step (c) of claim 23 provides an unexpected result. Thus, we conclude that the teachings of the prior art establish a prima facie case of obviousness with regard to the subject matter of claim 23, and we will sustain the examiner's rejection.

34. On page 13 of the July 7, 1995 Decision on Appeal for the '236 application, the Board stated:

From our perspective, the field of adhesives is a highly developed one, and the appellants have utilized known commercial products in uses for which they were intended. Also, there is ample evidence to establish that much knowledge was available in the prior art regarding adhesively attaching rear view mirrors to the inside surfaces of laminated vehicle windshields at the time of the appellants' invention.

35. In the July 7, 1995 Decision on Appeal, the Board rejected each of the applicants' arguments for patentability of the claims of the '236 application.

36. In the July 7, 1995 Decision on Appeal, the Board affirmed the examiner's rejections of all claims of the '236 application.

37. On page 13 of the July 7, 1995 Decision on Appeal for the '236 application, the Board stated:

We have given careful consideration to the arguments set forth by the appellants. However, they have not convinced us that the decisions made by the examiner were in error. Our position with regard to these arguments should be apparent from the foregoing recitations.

PROSECUTION OF THE DIVISIONAL APPLICATION (THE '236 PATENT)

38. On May 10, 1995, while the appeal of the '236 application was pending, the applicants filed a divisional of the '236 application. That divisional was assigned Application Serial No. 08/438,612.
39. Application Serial No. 08/438,612 ultimately issued as the '236 Patent.
40. The '236 Patent, on its face, indicates that it was assigned to Donnelly Corporation.
41. The examiner responsible for the '236 Patent was not the same examiner responsible for the '236 application.
42. The law firm of Price, Heneveld, Cooper, DeWitt & Litton prosecuted the '236 Patent on behalf of the applicants.
43. The law firm of Price, Heneveld, Cooper, DeWitt & Litton were the attorneys of record representing the applicants in the PTO during prosecution of the '236 Patent.
44. Attorneys Gunther Evanina and Mark Bandy, among other attorneys at Price, Heneveld, Cooper, DeWitt & Litton, were the attorneys of record representing the applicants in the PTO during prosecution of the '236 Patent.
45. The named inventors on the '236 application are the same named inventors on the '236 Patent.
46. The applicants for the '236 application are the same applicants for the '236 Patent.
47. During prosecution of the '236 Patent, Magna Donnelly did not disclose the Board's July 7, 1995 Decision on Appeal for the '236 application to the examiner responsible for the '236 Patent.
48. During prosecution of the '236 Patent, Magna Donnelly did not disclose the content of the Board's July 7, 1995 Decision on Appeal for the '236 application to the examiner responsible for the '236 Patent.

49. During prosecution of the '236 Patent, the named inventors on the '236 Patent did not disclose the Board's July 7, 1995 Decision on Appeal for the '236 application to the examiner responsible for the '236 Patent.
50. During prosecution of the '236 Patent, the named inventors on the '236 Patent did not disclose the content of the Board's July 7, 1995 Decision on Appeal for the '236 application to the examiner responsible for the '236 Patent.
51. During prosecution of the '236 Patent, the law firm of Price, Heneveld, Cooper, DeWitt & Litton did not disclose the Board's July 7, 1995 Decision on Appeal for the '236 application to the examiner responsible for the '236 Patent.
52. During prosecution of the '236 Patent, the law firm of Price, Heneveld, Cooper, DeWitt & Litton did not disclose the content of the Board's July 7, 1995 Decision on Appeal for the '236 application to the examiner responsible for the '236 Patent.
53. During prosecution of the '236 Patent, Gunther Evanina did not disclose the Board's July 7, 1995 Decision on Appeal for the '236 application to the examiner responsible for the '236 Patent.
54. During prosecution of the '236 Patent, Gunther Evanina did not disclose the content of the Board's July 7, 1995 Decision on Appeal for the '236 application to the examiner responsible for the '236 Patent.
55. During prosecution of the '236 Patent, Mark Bandy did not disclose the Board's July 7, 1995 Decision on Appeal for the '236 application to the examiner responsible for the '236 Patent.

56. During prosecution of the '236 Patent, Mark Bandy did not disclose the content of the Board's July 7, 1995 Decision on Appeal for the '236 application to the examiner responsible for the '236 Patent.
57. During prosecution of the '236 Patent, none of the applicants disclosed the Board's July 7, 1995 Decision on Appeal for the '236 application to the examiner responsible for the '236 Patent.
58. During prosecution of the '236 Patent, none of the applicants disclosed the content of the Board's July 7, 1995 Decision on Appeal for the '236 application to the examiner responsible for the '236 Patent.
59. During prosecution of the '236 Patent, no one representing the applicants in the PTO disclosed the Board's July 7, 1995 Decision on Appeal for the '236 application to the examiner responsible for the '236 Patent.
60. During prosecution of the '236 Patent, no one representing the applicants in the PTO disclosed the content of the Board's July 7, 1995 Decision on Appeal for the '236 application to the examiner responsible for the '236 Patent.
61. As originally filed, issued independent claim 20 of the '236 Patent was presented as claim 37.
62. As originally filed, issued claim 20 (application claim 37) of the '236 Patent recited:

Claim 37. An interior rearview mirror mounting system for use on an automobile comprising:

a laminated windshield;

said windshield comprising a first bent glass panel having a front surface and a rear surface, and a second bent glass panel having a front surface and a rear surface;

a sheet of polymeric interlayer disposed between the rear surface of said first panel and the front surface of said second panel wherein said polymeric interlayer laminates said first and second panel together;

a mirror mounting button adhered to said rear surface of said second panel by a layer of substantially cured adhesive;

said layer of substantially cured adhesive being formed by disposing a film of a one-package, structural adhesive between said rear surface of said second panel and said mirror mounting button, and curing said film in an autoclave process to form a joint between said button and said windshield suitable to support an interior rearview mirror assembly; and

said film of structural adhesive comprising an epoxy resin and a latent hardener.

63. As originally filed, issued independent claim 35 of the '236 Patent was presented as claim 52.
64. As originally filed, issued claim 35 (application claim 52) of the '236 Patent recited:

Claim 52. An interior rearview mirror mounting system for use on an automobile comprising:

a laminated windshield;

said windshield comprising a first bent glass panel having a front surface and a rear surface, and a second bent glass panel having a front surface and a rear surface;

a sheet of polymeric interlayer disposed between the rear surface of said first panel and the front surface of said second panel wherein said polymeric interlayer laminates said first and second panel together;

a mirror mounting button adhered to said rear surface of said second panel by a layer of substantially cured adhesive;

said layer of substantially cured adhesive being formed by disposing a film of a one-package, structural adhesive between said rear surface of said second panel and said mirror mounting button, and curing said film in an autoclave process to form a joint between said button and said windshield suitable to support an interior rearview mirror assembly;

said film of structural adhesive comprising an epoxy resin and a latent hardener; and

wherein said curing of said film occurs at a temperature greater than about 125°F and less than about 325°F.

65. On or about October 4, 1995, the examiner responsible for the '236 Patent issued an Office Action (the "October 4, 1995 Office Action") rejecting all pending claims under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 3,131,251 to Ryan in view of U.S. Patent No. 4,254,931 to Aikens et al., U.S. Patent No. 4,593,878 to Stewart and the Adhesives Notebook.
66. The Board in its July 7, 1995 Decision on Appeal for the '236 application had considered each of the references the examiner cited in the October 4, 1995 Office Action for the '236 Patent.
67. In response to the examiner's October 4, 1995 Office Action for the '236 Patent, the applicants filed a response titled "Amendment A" on or about March 4, 1996 ("March 4, 1996 Amendment A").
68. Applicants filed the March 4, 1996 Amendment A for the '236 Patent about eight months after the Board issued the July 7, 1995 Decision on Appeal for the '236 application. (See Paragraph 29.)
69. The March 4, 1996 Amendment A for the '236 Patent was submitted in the names of Raj K. Agrawal, Niall R. Lynam and James K. Galer by Price, Heneveld, Cooper, DeWitt & Litton; and signed by Gunther J. Evanina.
70. In the March 4, 1996 Amendment A for the '236 Patent, issued claim 20 (application claim 37) of the '236 Patent was amended as shown below with strikeout or double brackets to denote deletions and underlining to denote additions.

Amended Claim 37. An interior rearview mirror mounting system for
use on an automobile comprising:

a laminated windshield;

said windshield comprising a first bent glass panel having a front surface and a rear surface, and a second bent glass panel having a front surface and a rear surface;

a sheet of polymeric interlayer disposed between the rear surface of said first panel and the front surface of said second panel wherein said polymeric interlayer laminates said first and second panel together, said lamination together of said first panel and said second panel being achieved by an autoclave process; a mirror mounting button adhered to said rear surface of said second panel by a layer of substantially cured adhesive;

an interior rearview mirror assembly;

said layer of substantially cured adhesive being formed by disposing a film of a one-package, structural adhesive between said rear surface of said second panel and said mirror mounting button, and curing said film in an autoclave process to form a joint between said button and said windshield suitable to support ~~[[an]]~~ said interior rearview mirror assembly, said curing of said film and said lamination of said windshield being achieved in the same autoclave process; and

said film of structural adhesive comprising an epoxy resin and a latent hardener.

71. Issued claim 20 (application claim 37) of the '236 Patent was amended to add the product-by-process limitation of "said lamination together of said first panel and said second panel being achieved by an autoclave process."
72. Issued claim 20 (application claim 37) of the '236 Patent was amended to add the product-by-process limitation of "said curing of said film and said lamination of said windshield being achieved in the same autoclave process."
73. In the March 4, 1996 Amendment A for the '236 Patent, issued claim 35 (application claim 52) of the '236 Patent was amended as shown below with strikeout or double brackets to denote deletions and underlining to denote additions.

Claim 52 (Amended) An interior rearview mirror mounting system for use on an automobile comprising:

a laminated windshield;

said windshield comprising a first bent glass panel having a front surface and a rear surface, and a second bent glass panel having a front surface and a rear surface;

a sheet of polymeric interlayer disposed between the rear surface of said first panel and the front surface of said second panel wherein said polymeric interlayer laminates said first and second panel together, said lamination together of said first panel and said second panel being achieved by an autoclave process;

a mirror mounting button adhered to said rear surface of said second panel by a layer of substantially cured adhesive;

said layer of substantially cured adhesive being formed by disposing a film of a one-package, structural adhesive between said rear surface of said second panel and said mirror mounting button, and curing said film in an autoclave process to form a joint between said button and said windshield suitable to support an interior rearview mirror assembly, said curing of said film and said lamination of said windshield being achieved in the same autoclave process;

said film of structural adhesive comprising an epoxy resin and a latent hardener; and

wherein said curing of said film occurs at a temperature greater than about 125°F and less than about 325°F.

74. Issued claim 35 (application claim 52) of the '236 Patent was amended to add the product-by-process limitation of "said lamination together of said first panel and said second panel being achieved by an autoclave process."
75. Issued claim 35 (application claim 52) of the '236 Patent was amended to add the product-by-process limitation of "said curing of said film and said lamination of said windshield being achieved in the same autoclave process."
76. On page 4 of the March 4, 1996 Amendment A for the '236 Patent, the applicants stated:

None of the references of record provide any teaching or suggestion for a laminated windshield which is prepared using an autoclave process wherein glass panels are laminated using a polymeric interlay, while a mirror mounting button is simultaneously adhered to one of the glass

layers using a thermosetting, one-package structural adhesive which is cured in the same autoclave process.

77. On pages 4-5 of the March 4, 1996 Amendment A for the '236 Patent, the applicants stated:

Further, none of the references of record teach or suggest a mirror mounting button, windshield arrangement wherein a one-package, thermosetting structural adhesive is used for adhering a mirror mounting button to a windshield.

78. On page 5 of the March 4, 1996 Amendment A for the '236 Patent, the applicants stated with reference to U.S. Patent No. 4,593,878 to Stewart:

The inclusion of epoxy resins in the list of flexible thermoplastic materials which concludes with the words "and the like", suggests that the inclusion of epoxy resins (a non-elastomeric, thermosetting material) was possibly unintended and inadvertent.

79. On page 5 of the March 4, 1996 Amendment A for the '236 Patent, the applicants stated with reference to U.S. Patent No. 4,593,878 to Stewart:

Further, it is unlikely that one of ordinary skill in the art would utilize a thermosetting structural adhesive having a modulus of elasticity of at least 10,000 psi in view of Stewart's pronounced preference for silicone rubber elastomers which typically have a modulus of elasticity below 500 psi at 85° C.

80. The applicants stated on page 5 of the March 4, 1996 Amendment A for the '236 Patent:

In view of the foregoing, it is respectfully submitted that one having ordinary skill in the art would perceive a pronounced preference for elastomeric, or at least flexible thermoplastic adhesives, and an aversion to the thermosetting adhesives as set forth in the claims.

81. Following the applicants' March 4, 1996 Amendment A, the examiner responsible for the '236 Patent did not issue any further rejections to the pending claims.

82. On or about June 14, 1996, the examiner responsible for the '236 Patent issued an Examiner's Amendment and Notice of Allowance for the '236 Patent.

PROSECUTION DURING THE REEXAMINATION

83. On or about August 1, 2007, an Order granting ex parte reexamination of claims 1-42 of the '236 Patent was issued ("the '236 Patent reexamination").
84. On or about November 29, 2007, an Office Action in Ex Parte Reexamination was issued ("November 29, 2007 Office Action").
85. The examiner responsible for the '236 Patent reexamination was not the same examiner responsible for either the '236 application or the '236 Patent.
86. In Paragraph I of the November 29, 2007 Office Action for the '236 Patent reexamination, the examiner stated:
- U.S. Patent 5,587,236 issued from application Serial No. 08/438,612 which was a divisional application of Serial No. 07/773,236. In Appeal No. 94-1957, the Board of Patent Appeals & Interferences sustained the rejection of claims 23-27, 32-34 and 37 of the 07/773,236 application over the above cited prior art. The mirror mounting assembly of claims 1-4, 10-14, 20-24, 26-36 and 38-42 of the 5,587,236 patent would necessarily result from the process of the claims of 23-27, 32-34 and 37 of the 07/773,236 application. Accordingly, claims 1-4, 10-14, 20-24, 26-36 and 38-42 are rejected for the reasons stated on page 6-11 of the Decision in Appeal No. 94-1957 which are hereby incorporated by reference.
87. Paragraph I of the November 29, 2007 Office Action for the '236 Patent reexamination discloses that the Decision in Appeal No. 94-1957 of the '236 application is material to the patentability of the claims of the '236 Patent.
88. On or about December 28, 2007, a Response in Ex Parte Re-Examination (37 C.F.R § 1.111) was filed ("December 28, 2007 Response").
89. The December 28, 2007 Response for the '236 Patent reexamination was submitted under the name of Raj K. Agrawal et al., by Van Dyke, Gardner, Linn & Burkhardt, LLP, and signed by Timothy A. Flory.

90. The Patent Owner's Statement of Interview was attached to the December 28, 2007 Response for the '236 Patent reexamination ("December 28, 2007 Patent Owner's Statement of Interview").
91. The patent owner stated in the first paragraph of the December 28, 2007 Patent Owner's Statement of Interview for the '236 Patent reexamination: "The interview was conducted on December 13, 2007 with Examiner Jerry Johnson, Examiner Alan Diamond, Examiner Deborah Jones, Mr. Timothy Flory (attorney of record) and Dr. Niall Lynam, representative of the patent owner and a co-inventor of the '236 Patent."
92. The patent owner stated in the third paragraph of the December 28, 2007 Patent Owner's Statement of Interview for the '236 Patent reexamination: "Dr. Lynam indicated that he would submit a Declaration in support of the materials presented during the interview. The presentation materials discussed on December 13 are attached as Exhibit A to Dr. Lynam's Declaration submitted with the response to the Office Action."
93. In the December 28, 2007 Response for the '236 Patent reexamination, the patent owner stated at page 15 that: "3M's adaptation of the '236 patent's teachings to achieve significant commercial success in displacing PVB and silicone mirror button adhesions systems ... provide[s] further evidence of the non-obviousness of the claimed invention (Lynam Declaration, Paragraphs 41, 49 and 62 and Exhibits B, C and F)."
94. The statement from the December 28, 2007 Response for the '236 Patent reexamination quoted in Paragraph 93 above attributes commercial success to 3M's adaptation of the '236 Patent's teachings.
95. In the December 28, 2007 Response for the '236 Patent reexamination, the patent owner stated at page 21 that:

For example, claim 20 of the '236 patent (formerly application claim 37) was amended to include the limitation that the curing of the film and the lamination of the windshield are achieved in the same autoclave process, which is a limitation not weighed by the Board in rendering its decision in the parent application. Further, the method of claim 37 of the parent patent application involves "subjecting said entire glass panel/polymeric interlayer/structural adhesive/mounting button arrangement to sufficient temperature and pressure to cure said structural adhesive and to laminate said windshield panels," which is not restricted to an autoclave process (Lynam Declaration, Paragraph 45 and Slide #29 of Exhibit A), while issued claim 35 of the '236 patent (formerly application claim 52) affirmatively requires "curing the film in an autoclave process", and this restriction was added during prosecution of the '236 patent (Lynam Declaration, Paragraph 45, and Slides #23-25 and 28-30 in Exhibit A attached thereto).

96. The portion of the December 28, 2007 Response for the '236 Patent reexamination quoted in Paragraph 95 above acknowledges that issued claim 20 (application claim 37) of the '236 Patent was amended to include the limitation that the curing of the film and the lamination of the windshield are achieved in the same autoclave process.

97. In the December 28, 2007 Response for the '236 Patent reexamination, the patent owner stated at page 24 that:

Moreover, the greatly enhanced bonding of the mirror mounting button to the windshield and the enhanced vibration performance of the mirror assembly mounted thereto are examples of the unexpected results and benefits achieved by using an aerospace, non-elastomeric, epoxy-based, autoclave-compatible, structural adhesive film in the matter claimed in the '236 patent (Lynam Declaration, Paragraphs 20, 40, 42, 48 and 64.)

98. In the December 28, 2007 Response for the '236 Patent reexamination, the patent owner stated at page 30 that: "There is no disclosure or suggestion in Ono et al. of utilizing a non-elastomeric, autoclave-compatible, one-package structural adhesive of the types claimed in independent claims 1, 20 and/or 35 of the '236 patent for adhering a mirror mounting button to the windshield."

99. The December 28, 2007 Response for the '236 Patent reexamination included a document entitled "Declaration of Dr. Niall R. Lynam Under 37 CFR § 1.132" (the "December 28, 2007 Lynam Declaration").
100. Dr. Lynam stated in Paragraph 2 of the December 28, 2007 Lynam Declaration for the '236 Patent reexamination that: "I am one of the three co-inventors of the '236 Patent."
101. Dr. Lynam states in Paragraph 9 of the December 28, 2007 Lynam Declaration for the '236 Patent reexamination that: "I am familiar with the state of the art as of the early '90s in the arena of vehicular mirrors in general and mirror button attachment systems in particular."
102. Dr. Lynam stated in Paragraph 23 of the December 28, 2007 Lynam Declaration for the '236 Patent reexamination that: "The Parent application to the '236 Patent was filed at the USPTO on October 9th 1991, with the most preferred adhesive then known to the applicants for achieving the solution of the invention being a non-elastomeric structural adhesive available from the 3M Company, St. Paul, Minn. ("3M") under the trade name SCOTCH-WELDTM AF-163-2 ("AF-163-2")."
103. Dr. Lynam stated in Paragraph 27 of the December 28, 2007 Lynam Declaration for the '236 Patent reexamination that: "Such a co-development project was indeed commenced between Donnelly and 3M with the objective of building on, and further improving, what Donnelly has disclosed in the Parent to the '236 Patent on October 9th 1991 and what was shared by Donnelly with 3M in late 1991."
104. The portion of the December 28, 2007 Lynam Declaration quoted in Paragraphs 102 and 103 above acknowledge that Magna Donnelly commenced a co-development project with 3M with the objective of building on, and further improving Magna Donnelly's work.

105. Dr. Lynam stated in Paragraph 29 of the December 28, 2007 Lynam Declaration for the '236 Patent reexamination that:

As evidenced in Slide # 13, the subject 3M mirror button attachment technology made its US debut in early 1995 on the Ford Mustang and "has since been adopted by Ford on almost all its cars and trucks". The article goes on to say that "All three of the 3M Structural Bonding Tapes produce a bond that easily outperforms the previous industry standard, polyvinyl butyral (PVB), especially in hot and humid conditions". It further says: "the taped buttons are pressed into place and heat-cured during the autoclaving process that is used to manufacture windshields".

106. Dr. Lynam stated in Paragraph 33 of the December 28, 2007 Lynam Declaration for the '236 Patent reexamination that:

Much of what 3M highlights in its Journal of Automotive Innovation of 1996/1997 is embodied in the '236 Patent disclosure and claims. This is evident from even a cursory read of the SHIFT Journal of Automotive Innovation Issues 1 1996 "On For Good" article from 3M attached hereto as Exhibit C. I understand and believe that 3M's No. 9214 Structural Bonding Tape to be a one-package structural adhesive film comprising an epoxy resin and a latent hardener that is formulated to be a mirror button attachment adhesive film suitable for heat curing in the autoclaving process during windshield manufacturing. In my opinion, it is telling that 3M in 1996 is highlighting the use of such an adhesive tape to be delivering nine times the performance of the conventional adhesive system, and that 3M further highlight in these articles other features of the '236 Patent disclosure and claims, such as die-cutting an autoclave-curable structural adhesive film comprising an epoxy resin and a latent hardener, and such as use of a gray/black autoclave-curable epoxy-based adhesive film.

107. Dr. Lynam stated in Paragraph 39 of the December 28, 2007 Lynam Declaration for the '236 Patent reexamination that: "And that it took 3M, a company with renowned expertise in the field of adhesives, some more years to refine and finesse what Donnelly brought to it via a co-development project in 1991 further evidences that the adaption of such an aerospace adhesive for such a particular automotive application is novel and innovative."

108. The portion of the December 28, 2007 Lynam Declaration quoted in Paragraph 107 above attributes to 3M years of refining and finessing what Magna Donnelly brought to 3M via a co-development project in 1991.
109. Dr. Lynam stated in Paragraph 44 of the December 28, 2007 Lynam Declaration for the '236 Patent reexamination that: "As indicated at Slides #28 — 30 in the Presentation attached as Exhibit A hereto, the mirror mounting system of claims of the '236 Patent would not necessarily result from the process of claims of the 07/773,236 Parent Application."
110. Dr. Lynam also stated in Paragraph 44 of the December 28, 2007 Lynam Declaration for the '236 Patent reexamination that: "I also note that the Examiner during prosecution of the '236 Patent initially rejected the application claims based on the prior art of record, and that the limitations to an autoclave process, such as are shown in Slides #24 — 25, were added by the Applicants to the application claims to overcome this rejection."
111. The portion of the December 28, 2007 Lynam Declaration quoted in Paragraph 110 above acknowledges that issued claim 20 (application claim 37) of the '236 Patent was amended to overcome a rejection based on the prior art.
112. The portion of the Lynam Declaration quoted in Paragraph 110 above acknowledges that issued claim 35 (application claim 52) of the '236 Patent was amended to overcome a rejection based on the prior art.
113. Dr. Lynam stated in Paragraph 45 of the December 28, 2007 Lynam Declaration for the '236 Patent reexamination that: "... the Method of claim 37 [of the 07/773,236 Parent application] involves 'subjecting said entire glass panel/polymeric interlayer/structural adhesive/mounting button arrangement to sufficient temperature and pressure to cure said

structural adhesive and to laminate said windshield panels.’ Note that this is not restricted to an autoclave process (for example, such pressure in Claim 37 to achieve cure and lamination could be via weights in an ordinary oven.)”

114. Dr. Lynam stated in Paragraph 46 of the December 28, 2007 Lynam Declaration for the ‘236 Patent reexamination that: “In sharp contrast, as can be seen in Slide #29 in the Presentation at Exhibit A, issue claim 35 of the ‘236 Patent (as compared to claim 37 of the 07/773,236 Parent application) affirmatively requires ‘curing the film in an autoclave process’, and this restriction was added during prosecution of the ‘236 Patent (see Slides #24 — 25 in the Exhibit A attached hereto).”
115. Dr. Lynam stated in Paragraph 65 of the December 28, 2007 Lynam Declaration for the ‘236 Patent reexamination that: “All statements made herein of my own knowledge. I understand that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001, and that such willful false statements may jeopardize the validity of United States Patent No. 5,587,236.”
116. Slide 26 of Exhibit A to the December 28, 2007 Lynam Declaration for the ‘236 Patent reexamination is titled: “Office Action — October 4, 1995: The Examiner was familiar with the parent application.”
117. Slide 26 of Exhibit A to the December 28, 2007 Lynam Declaration for the ‘236 Patent reexamination presented a rejection from an office action in the ‘236 Patent. The rejection is headed: “Claims 17-22 are rejected under 35 U.S.C. § 103 as being unpatentable over Ryan in view of Stewart, Aikens et al., the Adhesives Handbook further in view of Dressler.” The rejection begins with the statement: “Applicants are

referred to the preceding rejection for a discussion of the first four former references as applied to claims 1 and 37.”

118. On Slide 26 of Exhibit A to the December 28, 2007 Lynam Declaration for the ‘236 Patent reexamination, as presented to the PTO, the statement “Applicants are referred to the preceding rejection for a discussion of the first four former references as applied to claims 1 and 37” is circled and the phrase “preceding rejection” is underlined.
119. In the margin of Slide 26 of Exhibit A to the December 28, 2007 Lynam Declaration for the ‘236 Patent reexamination, there is a statement that: “The preceding rejection was in the 07/773,236 Parent Application — so the Examiner here plainly was familiar with the Prosecution History of the parent application . . . And would also be aware of the appeal & abandonment thereof.”
120. Slide 19 of Exhibit A to the December 28, 2007 Lynam Declaration for the ‘236 Patent reexamination presents a first rejection in the left hand column stating: “Claims 1-16, drafted to a mirror button, windshield arrangement, and claims 37-41, 52 and 53, drawn to an interior rear view mirror system, are rejected under 35 U.S.C. § 103 as being unpatentable over Ryan in view of Stewart, Aikens et al. and the Adhesives Handbook.”
121. Slide 19 of Exhibit A to the December 28, 2007 Lynam Declaration for the ‘236 Patent reexamination presents a second rejection at the top of the right hand column stating: “Claims 17-22 are under 35 U.S.C. § 103 as being unpatentable over Ryan in view of Stewart, Aikens et al. and the Adhesives Handbook further in view of Dressler.”
122. The second rejection on Slide 19 of Exhibit A to the December 28, 2007 Lynam Declaration for the ‘236 Patent reexamination begins with the following statement, which

as circled on Slide 19: “Applicants are referred to the preceding rejection for a discussion of the first four former references as applied to claims 1 and 37.”

123. Slide 19 of Exhibit A to the December 28, 2007 Lynam Declaration for the ‘236 Patent reexamination presents a third rejection at the bottom of the right hand column stating: “Claims 42-51 and 54-61 are under 35 U.S.C. § 103 as being unpatentable over Ryan in view of Stewart, Aikens et al. and the Adhesives Handbook further in view of Structural Adhesives and Concise Guide to Structural Adhesives.”
124. The third rejection on Slide 19 of Exhibit A to the December 28, 2007 Lynam Declaration for the ‘236 Patent reexamination begins with the following statement, which was circled on Slide 19: “Applicants are referred to the preceding rejection for a discussion of Ryan, Stewart, Aikens et al. and the Adhesives Book.”
125. Between the left and right hand columns on Slide 19 of Exhibit A to the December 28, 2007 Lynam Declaration for the ‘236 Patent reexamination, there is a statement that: “The preceding rejection was in the 07/773,236 Parent application, so the Examiner here plainly was familiar with the Prosecution History of the parent application.”
126. The first rejection in the left hand column of Slide 19 of Exhibit A to the December 28, 2007 Lynam Declaration for the ‘236 Patent reexamination stating: “Claims 1-16, drafted to a mirror button, windshield arrangement, and claims 37-41, 52 and 53, drawn to an interior rear view mirror system, are rejected under 35 U.S.C. § 103 as being unpatentable over Ryan in view of Stewart, Aikens et al. and the Adhesives Handbook,” does not appear in any rejection in the 07/773,236 Parent application (i.e., the ‘236 application).

127. The first rejection in the left hand column of Slide 19 of Exhibit A to the December 28, 2007 Lynam Declaration for the '236 Patent reexamination stating: "Claims 1-16, drafted to a mirror button, windshield arrangement, and claims 37-41, 52 and 53, drawn to an interior rear view mirror system, are rejected under 35 U.S.C. § 103 as being unpatentable over Ryan in view of Stewart, Aikens et al. and the Adhesives Handbook," appears at page 3 of the October 4, 1995 Office Action.
128. The examiner's discussion of Ryan in view of Stewart, Aikens et al. and the Adhesives Handbook in the October 4, 1995 Office Action for the '236 Patent is presented at pages 4 and 5.
129. The second rejection at the top of the right hand column of Slide 19 of Exhibit A to the December 28, 2007 Lynam Declaration for the '236 Patent reexamination stating: "Claims 17-22 are under 35 U.S.C. § 103 as being unpatentable over Ryan in view of Stewart, Aikens et al. and the Adhesives Handbook further in view of Dressler" appears at page 5 of the October 4, 1995 Office Action for the '236 Patent.
130. The first rejection in the left hand column of Slide 19 of Exhibit A to the December 28, 2007 Lynam Declaration for the '236 Patent reexamination stating: "Claims 1-16, drafted to a mirror button, windshield arrangement, and claims 37-41, 52 and 53, drawn to an interior rear view mirror system, are rejected under 35 U.S.C. § 103 as being unpatentable over Ryan in view of Stewart, Aikens et al. and the Adhesives Handbook," immediately precedes the second rejection shown at the top of the right hand column of Slide 19.
131. The first rejection in the left hand column of Slide 19 of Exhibit A to the December 28, 2007 Lynam Declaration for the '236 Patent reexamination stating: "Claims 1-16, drawn

to a mirror button, windshield arrangement, and claims 37-41, 52 and 53, drawn to an interior rear view mirror system, are rejected under 35 U.S.C. § 103 as being unpatentable over Ryan in view of Stewart, Aikens et al. and the Adhesives Handbook,” appears in the same office action as the rejection shown in Slide 26 of Exhibit A to the December 28, 2007 Lynam Declaration.

132. The first rejection in the left hand column of Slide 19 of Exhibit A to the December 28, 2007 Lynam Declaration for the ‘236 Patent reexamination stating: “Claims 1-16, drafted to a mirror button, windshield arrangement, and claims 37-41, 52 and 53, drawn to an interior rear view mirror system, are rejected under 35 U.S.C. § 103 as being unpatentable over Ryan in view of Stewart, Aikens et al. and the Adhesives Handbook,” immediately precedes the rejection presented on Slide 26 of Exhibit A to the December 28, 2007 Lynam Declaration.

133. On or about April 17, 2009, the patent owner filed an Appeal Brief for the ‘236 Patent reexamination (the “April 17, 2009 Appeal Brief”).

134. The patent owner stated on page 11 of the April 17, 2009 Appeal Brief for the ‘236 Patent reexamination that:

Appellant submits that the prior art applied collectively fails to provide any disclosure or suggestion or motivation to use the claim-specified adhesive for attaching a mirror mounting button to a windshield of a vehicle, and thus it would not have been obvious to one of ordinary skill in the art at the time of the invention to use such a non-elastomeric structural adhesive in such an application.

135. The patent owner stated on page 16 of the April 17, 2009 Appeal Brief for the ‘236 Patent reexamination that:

In addition, Appellant submits that the prior art must be considered as a whole, and when this is done, it is clear that the prior art of record herein collectively teaches away from adhesively bonding mounting buttons to mirror windshields with a non-elastomeric structural adhesive of the types

claimed in the '236 patent. For example, the prior art (discussed below) consistently points towards use of elastomeric adhesives (such as elastomeric PVB adhesives and elastomeric silicone rubber adhesives) for attaching mirror mounting buttons to glass vehicular windshields.

136. The patent owner stated on page 21 of the April 17, 2009 Appeal Brief for the '236

Patent reexamination that:

Plainly, the cured state of an adhesive is a different structure than its uncured state, and plainly, the structure of the cured state of an adhesive is defined and determined by the curing conditions and the composition used.

137. The patent owner also stated on page 21 of the April 17, 2009 Appeal Brief for the '236

Patent reexamination that: "An autoclave process dictates a restricted and relatively moderate temperature regime as indicated in the present application (such as at set forth at column 4, lines 23-25 of the '236 patent)."

138. The patent owner stated on pages 21-22 of the April 17, 2009 Appeal Brief for the '236

Patent reexamination that:

Plainly, for a given selection of adhesive, different curing processes/regimes would result in different cured states and thus would result in different structures for the cured adhesive and different structural bonds between the mirror mounting button and the windshield. Thus, the autoclave curing process set forth in claims 20-48 necessarily requires a structure of the cured adhesive to be consistent with what is disclosed in the '236 patent (such as at column 3, lines 19-41 of the '236 patent) and thus results in a different structure than what may result from the claims of the parent 07/773,236 application, and the product of the '236 patent would not necessarily result from the claimed process of the 07/773,236 application.

139. The patent owner stated on page 27 of the April 17, 2009 Appeal Brief for the '236

Patent reexamination that:

One of ordinary skill in the art, when faced with bonding two elements together, would look to use an adhesive that is both known for its use on the particular elements to be bonded and known for its use in a particular system. The mere fact that an adhesive may exist is immaterial to the selection process if the adhesive is not known to bond well with the

particular substrates to be joined and/or if the joint so formed is not suitable for its intended use.

140. The portion of the April 17, 2009 Appeal Brief for the '236 Patent reexamination quoted in Paragraph 139 above acknowledges that one of ordinary skill in the art, when faced with bonding two elements together, would look to use an adhesive that is both known for its use on the particular elements to be bonded and known for its use in a particular system.
141. The patent owner stated on page 31 of the April 17, 2009 Appeal Brief for the '236 Patent reexamination that: "The choice or selection of an adhesive for a particular application is therefore typically based on empirical data — namely the previous usage experience of a particular adhesive for a particular application."
142. The portion of the April 17, 2009 Appeal Brief for the '236 Patent reexamination quoted in Paragraph 141 above acknowledges that the choice or selection of an adhesive for a particular application is typically based the previous usage experience of a particular adhesive for a particular application.
143. The patent owner also stated on page 31 of the April 17, 2009 Appeal Brief for the '236 Patent reexamination that: "Thus, out of the thousands and thousands of adhesive compounds, a reasonable person of ordinary skill in the art, when faced with the problem of selecting an adhesive for an application such as set forth in the claims of the '236 patent, would likely select or screen the subset of elastomeric adhesive compositions that were at that time known to adhere mirror mounting buttons to glass windshields."
144. The portion of the April 17, 2009 Appeal Brief for the '236 Patent reexamination quoted in Paragraph 143 above acknowledges that a reasonable person of ordinary skill in the art, when faced with the problem of selecting an adhesive for an application, would likely

select or screen the subset of adhesive compositions that were at that time known for use in that application.

145. On or about July 31, 2009, the patent owner filed a Reply Brief for the '236 Patent reexamination (the "July 31, 2009 Reply Brief").
146. The patent owner stated on page 4 of the July 31, 2009 Reply Brief for the '236 Patent reexamination that: "Claims of the '236 Patent affirmatively require curing the film during an autoclave process and the claim limitations to this were added during prosecution of the '236 Patent to overcome a rejection based on the art from the 07/773,236 application."
147. The portion of the July 31, 2009 Reply Brief for the '236 Patent reexamination quoted in Paragraph 146 above acknowledges that issued claim 20 (application claim 37) of the '236 Patent was amended to overcome a rejection based on the prior art.
148. The portion of the July 31, 2009 Reply Brief for the '236 Patent reexamination quoted in Paragraph 146 above acknowledges that issued claim 35 (application claim 52) of the '236 Patent was amended to overcome a rejection based on the prior art.
149. On January 5, 2010, the Board of Patent Appeals and Interferences issued a decision in Appeal 2009-014598 of the Re-Examination of the '236 Patent (the "January 5, 2010 Decision on Appeal").
150. The Board's January 5, 2010 Decision on Appeal for the '236 Patent reexamination states at page 12:

We agree with the Examiner that the teachings of the prior art references, coupled with the knowledge and skill of one of ordinary skill in the art, would have rendered the claimed subject matter prima facie obvious (FF 12-17, 21). Specifically, Stewart, Adhesives Handbook, Concise Guide, Volkmann, and Morgan (FF 6-11) would have informed a person of ordinary skill in the art that curable epoxy adhesives, in either one-part or

two-part formulations, would be highly effective in bonding substrates such as metals, plastics, rubbers, and glass, including mirrors to windshields. Thus, we discern no error in the Examiner's conclusion that the teachings of the prior art would have provided a sufficient reason for one of ordinary skill in the art to substitute the PVB or silicone adhesives of Ryan or "the admitted prior art and Ono" with a commercially-available epoxy adhesive such as SCOTCH-WELD™ AF-163-2 based on the reasonable expectation that these adhesives would be interchangeable in the production of mirror-windshield arrangements.

THE '236 PATENT

151. Under the heading "Background of the Invention," the '236 Patent states at column 1, lines 15-22:

The front glass windshield in cars used in the United States, and in many cars used elsewhere in the world, is an assembly consisting of two glass panels laminated together. Conventionally, the process to form the windshield involves cutting two flat glass panels in the shape desired for the windshield and then bending these two flat glass panels as a matched pair to give them a matched compound curvature.

152. The portion of the '236 Patent specification quoted in Paragraph 151 above acknowledges that windshields were known in the prior art.
153. The portion of the '236 Patent specification quoted in Paragraph 151 above acknowledges that laminated windshields were known in the prior art.
154. The portion of the '236 Patent specification quoted in Paragraph 151 above acknowledges that laminated windshields comprising two glass panels were known in the prior art.
155. Under the heading "Background of the Invention," the '236 Patent states at column 1, lines 23-30:

A sheet of plasticized polyvinylbutyral (PVB) polymeric interlayer is then placed between the bent glass panels and the assembly so formed passes into an autoclave where the windshield lamination occurs. Such an autoclave process typically involves a cycle such as:

20 minutes at 180.degree. F.;
20 minutes at 285.degree. F. and 200 psi; and
cool to room temperature.

156. The portion of the '236 Patent specification quoted in Paragraph 155 above acknowledges that it was known in the prior art to use an autoclave process to laminate together glass panels of a windshield.
157. The portion of the '236 Patent specification quoted in Paragraph 155 above acknowledges that using a sheet of plasticized polyvinylbutyral (PVB) as an interlayer between two glass panels was known in the prior art.
158. Under the heading "Background of the Invention," the '236 Patent states at column 1, lines 33-53:

The practice of this windshield manufacturing process has fostered the development of methods which allow simultaneous attachment of the supports for interior rearview mirrors in cars.

Following the bending of the flat glass panels, a button, usually composed of sintered steel or diecast zinc, is attached by an adhesive onto the concave surface of the first of the glass panels intended to be directed to the interior cabin of the vehicle. Conventionally, a plasticized PVB film, which is an elastomeric, thermoplastic material and which is a similar material to that used as the interlayer for the formation of the windshield, is used as the adhesive means. At this stage of the process, the attachment of the button is temporary. This temporary attachment is typically achieved by attaching under modest pressure and heat so that the button is securely held for the assembly to proceed to the autoclave process. It is during the autoclave process of the windshield, at which time lamination of the PVB interlayer between the first and the second bent glass panels occurs, that the permanent attachment of the button to the windshield occurs.

159. The portion of the '236 Patent specification quoted in Paragraph 158 above acknowledges that mirror mounting buttons were known in the prior art.

160. The portion of the '236 Patent specification quoted in Paragraph 158 above acknowledges that mirror mounting buttons composed of sintered steel and diecast zinc were known in the prior art.
161. The portion of the '236 Patent specification quoted in Paragraph 158 above acknowledges that using an adhesive to adhere a mirror mounting button to a glass panel was known in the prior art.
162. The portion of the '236 Patent specification quoted in Paragraph 158 above acknowledges that curing an adhesive in an autoclave process was known in the prior art.
163. The portion of the '236 Patent specification quoted in Paragraph 158 above acknowledges that curing an adhesive and laminating a windshield in the same autoclave process was known in the prior art.

164. The '236 Patent at column 1, line 65 — column 2, line 11 states:

The primary disadvantage of using PVB film as the adhesive for the button is that it is an elastomeric, thermoplastic material with relatively poor load bearing properties. This deficiency was generally not a problem when the assembly weights for interior rearview mirrors were traditionally from about 100 grams to about 200 grams. Today, however assembly weights of 400 grams or more are common for interior mirror assemblies that incorporate reading lamps, electrochromic cells and circuitry, twilight sentinels, and the like. These new, heavier mirrors fall off or otherwise detach even during normal use, with a frequency that is undesirable when attached to windshields via buttons adhered to the windshield using a polyvinylbutyral film.

165. The portion of the '236 Patent specification quoted in Paragraph 164 above acknowledges that the deficiency of PVB was generally not a problem when the assembly weights for interior rearview mirrors were traditionally from about 100 grams to about 200 grams.
166. The portion of the '236 Patent specification quoted in Paragraph 164 above acknowledges that the deficiency of PVB was a problem with new, heavier mirrors.

167. The '236 patent at column 2, lines 45 — 49, states: “The present invention comprises a vehicle accessory mounting button, windshield arrangement and a method for making the same which uses nonelastomeric, thermosetting structural adhesives to adhere an accessory mounting button to the interior surface of a windshield.”
168. The '236 patent at column 2, lines 49 — 55, states: “It has been surprisingly found that nonelastomeric, thermosetting, structural adhesives provide outstanding long-term adhesion and good vibration performance even under rigorous climate conditions while simultaneously being compatible with conventional autoclaving processes used in windshield manufacturing.”
169. The '236 patent at column 4, lines 23 — 33, states:
- It is important to stress that the cure of the SCOTCHWELD™ AF-163-2 structural adhesive occurs simultaneous with, and in the same process step as, the windshield autoclave lamination step. Thus, it is important that the cure temperature be less than 325° F. This obviates the need to preattach mounting buttons with high temperature cure adhesives (such as structural adhesive film AF-42 from 3M Company, St. Paul, Minn.) to bent glass prior to the lamination process in a separate operation involving processing temperatures in excess of that tolerated by the laminating interlayers in common use.
170. 3M's AF-642 adhesive is a 6 mil version of 3M's AF-42 adhesive.
171. The '236 patent at column 7, lines 49 — 53, states: “In addition to the improved bonding performance which results from the use of structural adhesives such as AF-163-2, these adhesives are nonelastomeric and, as such, have a modulus of elasticity, when cured, greater than about 30,000 psi at 25° C, and greater than about 10,000 psi at 85° C.”

SELECT REFERENCES

U.S. PATENT NO. 5,160,780 TO ONO

172. U.S. Patent No. 5,160,780 to Ono et al. (“Ono ‘780”) was filed as a PCT application on December 23, 1988.

173. Ono '780 has a PCT Publication Date of June 29, 1989. Ono '780 entered the U.S. National Stage under 35 U.S.C. § 371 on September 19, 1989; has a 35 U.S.C. § 102(e) Date of September 19, 1989; and issued November 3, 1992.
174. The PCT counterpart to Ono '780, PCT/JP88/01320, was published June 29, 1989 as W089/05782.
175. Neither Ono '780 nor its PCT counterpart was disclosed to or cited by the U.S. Patent and Trademark Office (the "PTO") during the original prosecution of the '236 Patent.
176. Ono '780 was cited by the PTO during reexamination of the '236 Patent.
177. Ono '780 states at column 1, lines 6-12:
- This invention relates to a structure for installing a mirror base on a glass plate, particularly a mirror base-installing structure suitable for installing an inner mirror on a front window-shield glass of an automobile in the inside of the automobile, and a method for installing a mirror base on a glass plate.
178. Ono '780 discloses an interior rearview mirror mounting system for use on an automobile.
179. Ono '780 states at column 6, lines 33-39:
- FIG. 6 is a vertical section view illustrating one embodiment of a mirror base-installing structure wherein the mirror base 12 is installed on the concave side surface 11 of a front glass 10 at the upper position of the inside of an automobile, said front glass 10 being composed of a bilayer glass prepared by bonding two sheets of curved glass plates with an intermediate film.
180. Ono '780 discloses a laminated windshield having a first bent glass panel with a front surface and a rear surface, and a second bent glass panel with a front surface and a rear surface.

181. Ono '780 discloses a sheet of polymeric interlayer disposed between the rear surface of the first glass panel and the front surface of the second glass panel where the polymeric interlayer laminates the first and second panels together.
182. Ono '780 states at column 9, lines 26-32: "[The adhesive] maintains the initial thickness in the atmosphere of a temperature of 130 °C and a pressure of 13 kg/cm² in an autoclave used in the preparation of a bilayer glass."
183. Ono '780 discloses using an autoclave process to laminate the first glass panel and second glass panel together.
184. Ono '780 states at column 2, lines 8-19:
- This invention provides a mirror base-installing structure for installing a mirror base on a glass plate, characterized in that said mirror base is bonded to said glass plate with a film-like or sheet-like heat-curable adhesive interposed between the mirror base and the glass plate, said adhesive having elasticity or plasticity after heat-cured, and a method for installing a mirror base on a glass plate, characterized by interposing a film-like or sheet-like heat-curable adhesive, which provides elasticity or plasticity after heat-cured, between said glass plate and said mirror base to be bonded, and completing the bonding in an autoclave.
185. Ono '780 discloses a mirror base adhered to a rear surface of a bent glass panel using a film-like or sheet-like heat-curable adhesive.
186. Ono '780 discloses a mirror base adhered to a rear surface of a bent glass panel by a layer of cured adhesive.
187. Ono '780 states at column 3, lines 31-39:
- FIGS. 1 and 2 illustrate a structure example wherein a mirror base 4 is bonded to a glass plate 2 such as a wind-shield comprising a laminated glass 1 in an autoclave by interposing a film-like or sheet-like adhesive 3 between the mirror base 4 and the glass plate surface 2, and an inner mirror 5 is fixed on the mirror base 4 thus bonded, said adhesive in the form of film or sheet being heat-curable and providing elasticity or plasticity after heat-cured.
188. Ono '780 discloses an interior rearview mirror supported by a mirror mount button.

189. Ono '780 states at column 9, lines 16-32:

According to the present invention, a mirror base can be bonded simultaneously with the preparation of a bilayer glass, thereby simplifying the working process, and the bonding state of the mirror base bonded to the surface of the glass plate is more strengthened than in the conventional case in respect of heat-resistance, moisture-resistance and durability. Moreover, since the adhesive used is transparent, the mirror base itself can be an appealing point on the external view without spoiling the external appearance.

Particularly, when the film-like or the sheet-like adhesive comprising the above-mentioned silicone rubber composition is used as an adhesive for an inner mirror-installing base, it maintains the initial thickness in the atmosphere of a temperature of 130°C. and a pressure of 13 kg/cm² in an autoclave used in the preparation of a bilayer glass.

190. Ono '780 discloses curing a heat curable adhesive in an autoclave process to form a joint between a mirror mount button and a windshield.
191. Ono '780 discloses curing an adhesive and laminating a windshield in the same autoclave process.
192. Ono '780 discloses autoclaving conditions of 130 degrees C. [266 °F] and a pressure of 13 kg/cm².
193. Ono '780 states at column 2, lines 20-22: "A preferable film-like or sheet-like adhesive used in this invention is cross-linkable at a temperature from 50 ° C. [122 ° F.] to 200 ° C [392 ° F.]"
194. Ono '780 discloses curing a heat curable adhesive film at a temperature greater than about 125 °F. and less than about 325 °F.

U.S. PATENT NO. 3,499,744 TO TOLLIVER

195. U.S. Patent No. 3,499,744 to Tolliver ("Tolliver '744") was filed November 2, 1966 and issued March 10, 1970.

196. Tolliver '744 was not disclosed to or cited by the PTO during the original prosecution of the '236 Patent.
197. Tolliver '744 was cited by the PTO during reexamination of the '236 Patent.
198. Tolliver '744 states at column 1, lines 12-15:
- Adhering a metal bracket suitable for supporting a rear view mirror to a surface of a curved glass sheet by using the residual heat of bending to help adhere an adhesive coated surface of the metal bracket to said sheet.
199. Tolliver '744 discloses an interior rearview mirror mounting system that may be used on an automobile.
200. Tolliver '744 discloses an interior rearview mirror supported by a bracket.
201. Tolliver '744 states at column 1, lines 66-72:
- Two glass sheets that have been bent simultaneously are separated and reassembled with an interlayer of plasticized polyvinyl butyral for lamination in an autoclave under elevated temperature and pressure conditions for sufficient time to produce a transparent laminate, for example 30 minutes at about 200 pounds per square inch and 275 degrees Fahrenheit.
202. Tolliver '744 discloses a laminated windshield having a first bent glass panel with a front surface and a rear surface, and a second bent glass panel with a front surface and a rear surface.
203. Tolliver '744 discloses a sheet of polymeric interlayer disposed between the rear surface of the first glass panel and the front surface of the second glass panel where the polymeric interlayer laminates the first and second panels together.
204. Tolliver '744 discloses an interlayer of plasticized polyvinyl butyral.
205. Tolliver '744 discloses using an autoclave process to laminate the first glass panel and second glass panel together.

206. Tolliver '744 describes exemplary autoclave conditions of 30 minutes at about 200 pounds per square inch and 275 degrees Fahrenheit.
207. Tolliver '744 states at column 2, lines 1-5:
- Under such laminating conditions, mirror brackets that were secured to the glass sheets while still hot from bending became more securely bonded to the windshield while the assembled windshield components become a transparent composite assembly in the autoclave.
208. Tolliver '744 discloses a mirror bracket adhered to a glass panel by a layer of cured adhesive.
209. Tolliver '744 discloses curing a heat curable adhesive in an autoclave process to form a joint between a mirror bracket and a windshield.
210. Tolliver '744 teaches curing an adhesive film at a temperature greater than about 125 °F. and less than about 325 °F.
211. Tolliver '744 discloses curing an adhesive and laminating a windshield in the same autoclave process.

U.S. PATENT NO. 4,931,125 TO VOLKMANN ET AL.

212. U.S. Patent No. 4,931,125 to Volkmann et al. ("Volkmann '125") was filed October 16, 1987 and issued June 5, 1990.
213. Volkmann '125 was not disclosed to or cited by the PTO during the original prosecution of the '236 Patent.
214. Volkmann '125 was cited by the PTO during reexamination of the '236 Patent.
215. Volkmann '125 states at column 1, lines 15-18:
- The present invention relates to a method of adhesively bonding two bodies together, at least one of which is non-metallic, and articles produced by this method.
216. Volkmann '125 states at column 8, lines 26-32:

Other adhesives which work within the scope and teachings of the present invention include epoxy adhesives. A variety of epoxy adhesives work within the scope of the present invention including those which are rapidly curable at elevated temperatures and especially adapted for use on automotive assembly lines to adhesively bond metal and/or polymeric parts.

217. Volkmann '125 discloses epoxy adhesives "including those which are rapidly curable at elevated temperatures and especially adapted for use on automotive assembly lines to adhesively bond metal and polymeric parts."

218. Volkmann '125 states at column 11, lines 61-68:

A stainless steel, General Motors approved automotive interior windshield mirror mount is bonded to the laser treated glass surface with Hardman "Orange" two-part epoxy adhesive (which is recommended by the manufacturer for bonding stainless steel to glass and is rated as having good water resistance) premixed with glass beads as in Example 3.

219. The portion of Volkmann '125 quoted in Paragraph 218 above discloses the use of an epoxy adhesive for bonding a stainless steel automotive interior windshield mirror mount to glass.

U.S. PATENT NO. 4,364,595 TO MORGAN ET AL.

220. U.S. Patent No. 4,364,595 to Morgan et al. ("Morgan '595") was filed October 6, 1980 and issued December 21, 1982.

221. The law firm of Price, Heneveld, Cooper, DeWitt & Litton prosecuted Morgan '595 on behalf of the applicants.

222. Morgan '595 is assigned to Magna Donnelly.

223. Magna Donnelly was the assignee of Morgan '595 during the time period Magna Donnelly's application for the '236 Patent was pending before the PTO.

224. Magna Donnelly knew of Morgan '595 during the time period Magna Donnelly's application for the '236 Patent was pending before the PTO.

225. Morgan '595 was not disclosed to or cited by the PTO during prosecution of the '236 Patent.

226. Morgan '595 was cited by the PTO during reexamination of the '236 Patent.

227. Morgan '595 states at column 5, lines 14-26:

Studs 32, of which there may be one or more in any assembly, are preferably formed from ferromagnetic metal and fastened immediately adjacent the peripheral edge surface 12a on the rear surface 12c of pane 12 by means of a suitable metal-to-glass adhesive or bonding agent of which several are commercially available.

A preferred adhesive system found suitable for attachment of stud 32 directly to glass, and especially tempered glass in the present invention, is that marketed under the trademark Tenabond by Illinois Tool Works, Inc. of Elgin, Ill. Such system is believed to include an epoxy adhesive layer 38, as shown in FIGS. 4-6, typically applied in tape form to base 34 of stud 32.

228. Morgan '595 discloses the use of an epoxy adhesive in tape form to bond metal to glass windows.

U.S. PATENT NO. 4,593,878 TO STEWART

229. U.S. Patent No. 4,593,878 to Stewart ("Stewart '878") was filed November 6, 1981 and issued June 10, 1986.

230. Stewart '878 states at column 5, lines 19-25:

The cushioning layer 30 which also acts as a bonding or adhesive layer for adhering the mirror element 24 to the housing 22, may be any of a number of conventional polymers, normally used for bonding glass to a metal or plastic frame. As for example, acrylates or polyepoxy resins or other selected thermo-setting or thermoplastic resins, which also produce an air-tight seal may be used.

231. Stewart '878 discloses the use of thermo-setting adhesives for adhering glass to metal.

232. Stewart '878 discloses the use of polyepoxy resins for bonding glass to metal.

233. Referring to Figures 3 and 4, Stewart '878 states at column 6, lines 11-14:

As indicated above, the bonding layer 48 relatively permanently attaches the bracket assembly 38 to the interior surface of the automotive vehicle windshield 40.

234. Stewart '878 at column 6, lines 52-58 describes materials suitable for bonding layer 48 that include, for example, polypropylene resins, various vinyl materials, as for example polyvinyl chloride, or polyvinyl acetate, various acrylates, epoxy resins, and the like.
235. Stewart '878 discloses the use of epoxy adhesives to attach a mirror bracket to the interior surface of an automotive windshield.
236. During prosecution of the '236 application, the applicants admitted that Stewart '878 discloses attaching mirrors to automobile windshields with an adhesive selected from a variety of materials, including epoxy resins.

U.S. PATENT NO. 3,504,878 TO DRESSLER

237. U.S. Patent No. 3,504,878 to Dressler ("Dressler '878") was filed May 18, 1967 and issued April 7, 1970.
238. Dressler '878 states at column 2, line 70 - column 3 line 2:
- The trough, formed between the backing member and the shroud, provides an added function of collecting the flow of any excess adhesive from the backing member within the confines of the device by providing a space into which the adhesives can flow.
239. Dressler '878 discloses a groove located on the outside perimeter of a backing member where excess adhesive applied to the backing member is contained within the groove during bonding of the backing member to a surface.

ADHESIVES HANDBOOK

240. The reference J. SHIELDS, ADHESIVES HANDBOOK 40-41 (1970) was cited by the Board of Patent Appeals and Interferences (BPAI) in Appeal No. 94-1957 for Application Serial No. 07/773,236, the parent application to the '236 Patent.

241. J. SHIELDS, ADHESIVES HANDBOOK 40 (1970) states that epoxy adhesives are “[t]hermosetting synthetic products derived from the reaction of a polyepoxide resin and a basic acid curing agent (hardener).”
242. J. SHIELDS, ADHESIVES HANDBOOK 40 (1970) states that epoxy adhesives are “[a]vailable as one or two component systems. One component products include solvent-free liquid resins, solutions in solvent, liquid resin pastes, fusible powders, sticks, pellets, and paste, supported and unsupported films, preformed shapes cut to fit a particular joint.”
243. J. SHIELDS, ADHESIVES HANDBOOK 41 (1970) states that “[o]ne-part systems incorporate a hardening agent which requires heat to activate curing (30 min. at 100°C [212°F] is typical).”

CONCISE GUIDE TO STRUCTURAL ADHESIVES

244. The reference W.H. GUTTMANN, CONCISE GUIDE TO STRUCTURAL ADHESIVES 4-5 (1961) was cited by the BPAI in Appeal No. 94-1957 for Application Serial No. 07/773,236, the parent application to the ‘236 Patent.
245. W.H. GUTTMANN, CONCISE GUIDE TO STRUCTURAL ADHESIVES 5 (1961) states that “[e]poxy adhesives are available as pre-mixed single-component formulations in liquids, pastes, powders, rods and tapes or as two-component pastes or liquids made up of separate base resin and curing agent, packaged for future mixing.”
246. W.H. GUTTMANN, CONCISE GUIDE TO STRUCTURAL ADHESIVES 5 (1961) states that “[epoxy adhesives] are capable of cementing a wide variety of surfaces

including metals, plastics, rubbers, glass, ceramics, wood, and others, and without evolution of volatiles during cure.”

247. W.H. GUTTMANN, CONCISE GUIDE TO STRUCTURAL ADHESIVES 5 (1961) states that “[g]eneral glue-line thickness ranges from 0.001-0.01 inch.”

STRUCTURAL ADHESIVES: DEVELOPMENTS IN RESINS AND PRIMERS

248. The reference STRUCTURAL ADHESIVES: DEVELOPMENTS IN RESINS AND PRIMERS 60-63 (A.J. Kinloch ed., 1986) was cited by the Board of Patent Appeals and Interferences (BPAI) in Appeal No. 94-1957 for Application Serial No. 07/773,236, the parent application to the ‘236 Patent.
249. STRUCTURAL ADHESIVES: DEVELOPMENTS IN RESINS AND PRIMERS 60-63 (A J Kinloch ed., 1986) describes amine-based hardeners.
250. STRUCTURAL ADHESIVES: DEVELOPMENTS IN RESINS AND PRIMERS 63 (A.J. Kinloch ed., 1986) describes dicyandiamide as a latent hardener “used in the first commercial epoxy adhesives and this compound is still used, often with an accelerator or co-hardener.”

U.S. PATENT NO. 3,075,871 TO BARLET

251. U.S. Patent No. 3,075,871 to Barlet (“Barlet ‘871”) was filed April 21, 1960, and issued January 29, 1963.
252. Barlet ‘871 was not disclosed to or cited by the PTO during the original prosecution of the ‘236 Patent.
253. Barlet ‘871 was not disclosed to or cited by the PTO during reexamination of the ‘236 Patent.

254. Barlet '744 states at column 1, lines 9-12: "This invention relates to a method of bonding metal to glass and more specifically relates to a method of bonding metallic articles, such as brackets, to glass surfaces, such as the windshields of automobiles."
255. Barlet '744 discloses bonding metal brackets to the windshields of automobiles.
256. Barlet '744 states at column 2, lines 27-30: "For purposes of illustration, an epoxy resin adhesive composition containing an epoxy adduct hardener is described, but it will be readily evident that other types of adhesives might equally well be used."
257. Barlet '744 provides at column 2, line 34 — column 4, line 25, two examples illustrating bonding a metal bracket to a glass surface using an adhesive comprising an epoxy resin and an epoxy adduct hardener.
258. Barlet '744 discloses bonding metal brackets to glass surfaces using an adhesive comprising an epoxy resin and an epoxy adduct hardener.

U.S. PATENT NO. 4,552,604 TO GREEN

259. U.S. Patent No. 4,552,604 to Green ("Green '604") was filed May 27, 1980, claiming priority to U.S. Application No. 871,052, filed January 20, 1978. Green '604 issued November 12, 1985.
260. Green '604 was not disclosed to or cited by the PTO during the original prosecution of the '236 Patent.
261. Green '604 was not disclosed to or cited by the PTO during reexamination of the '236 Patent.
262. Green '604 states in its Abstract:

A process for bonding surfaces together comprises (i) exposing to actinic radiation a layer of a liquid composition containing an epoxide resin, photopolymerizable compound, and a heat-activated curing agent for epoxide resins until the composition solidifies to form a film adhesive while the epoxide resin remains substantially heat-curable; (ii)

sandwiching the film adhesive between the surfaces to be bonded, and (iii) then heating the assembly so that the epoxide resin component of the film adhesive is cured. Surfaces which maybe so bonded may be metal, glass, ceramic or wood.

263. Green '604 discloses a film adhesive comprising an epoxy resin and a heat-activated curing agent for the epoxy resin.
264. Green '604 discloses bonding metal and glass using a film adhesive comprising an epoxy resin and a heat-activated curing agent for the epoxy resin.
265. Green '604 discloses positioning a film adhesive comprising an epoxy resin and a heat-activated curing agent for the epoxy resin between surfaces to be bonded and heating the assembly to cure the epoxide resin component.
266. Green '604 discloses bonding metal and glass by positioning a film adhesive comprising an epoxy resin and a heat-activated curing agent for the epoxy resin between surfaces to be bonded and heating the assembly to cure the epoxide resin component.
267. Green '604 states at column 15, lines 45-51:

Suitable heat-activated curing agents include polycarboxylic acid anhydrides, dicyandiamide, complexes of amines, such as ethylamine and trimethylamine with boron trifluoride or boron trichloride, latent boron difluoride chelates, aromatic polyamines such as bis(p-aminophenyl)methane, and imidazoles such as 2-ethyl-4-methylimidazole and 2-phenylimidazole.

268. Green '604 discloses dicyandiamide and 2-ethyl-4-methylimidazole as heat-activated curing agents.

U.S. PATENT NO. 4,701,378 TO BAGGA ET AL.

269. U.S. Patent No. 4,701,378 to Bagga et al. ("Bagga '378") was filed April 2, 1986, claiming priority to GB 8,508,628, filed April 2, 1985. Bagga '378 issued October 20, 1987.

270. Bagga '378 was not disclosed to or cited by the PTO during the original prosecution of the '236 Patent.

271. Bagga '378 was not disclosed to or cited by the PTO during reexamination of the '236 Patent.

272. Bagga '378 states as claim 20:

20. A bonded assembly comprising two surfaces selected from the group consisting of metals, reinforced plastics, glass, friction materials and ceramics adhered together by a composition comprising

(a) an epoxide resin

(b) a nitrogen-containing latent curing agent for the epoxide resin and

(c) as cure accelerator dispersed as a powder in a mixture of (a) and (b), a solid solution of a nitrogen base having a boiling point above 130 °C. and a polymeric phenol which is a condensation product of a phenol with an aldehyde, said solid solution being prepared in the absence of an epoxy resin, said composition being heat-cured.

273. Claim 20 of Bagga '378 describes a bonded assembly comprising two surfaces adhered together by a composition.

274. Claim 20 of Bagga '378 describes bonded assemblies comprising surfaces selected from a group including metals and glass.

275. Claim 20 of Bagga '378 describes a bonded assembly comprising two surfaces adhered together by a composition comprising an epoxide resin, latent curing agent for the epoxide resin and a cure accelerator.

276. Bagga '378 states at column 4, lines 27-45:

The nitrogen-containing latent curing agent (b) used in the adhesives may be any substance that remains inert towards epoxide resins below a certain 'threshold' temperature, which is usually at least 80° C., and preferably 100° C. or above, but reacts rapidly to effect curing once that threshold temperature has been exceeded. Such materials are well known ... The use

of dicyandiamide, isophthalic acid dihydrazide and adipic acid dihydrazide is particularly preferred.

277. Bagga '378 discloses a latent curing agent that remains inert towards epoxide resins below a certain 'threshold' temperature.
278. Bagga '378 discloses a latent curing agent that remains inert towards epoxide resins below at least 80° C [176 °F].
279. Bagga '378 discloses dicyandiamide as a particularly preferred latent curing agent.
280. Bagga '378 states at column 1, lines 22-28:

Compositions containing an epoxide resin and a latent hardener generally take 15 minutes to 1 hour to cure at temperatures of about 180° C. Cure times can be shortened by incorporation of latent accelerators which have little effect on storage stability at ambient temperatures but which enable solidification of the mixture to take place within about 30 minutes at 120° C.

281. Bagga '378 discloses that compositions containing an epoxide resin and a latent hardener generally take 15 minutes to 1 hour to cure at temperatures of about 180° C [356 °F].
282. Bagga '378 discloses that cure times of compositions containing an epoxide resin and a latent hardener can be shortened by incorporation of latent accelerators.
283. Bagga '378 discloses compositions containing an epoxide resin, a latent hardener, and a latent accelerator can enable solidification of the mixture to take place within about 30 minutes at 120° C [248 °F].
284. Bagga '378 discloses compositions containing an epoxide resin, a latent hardener, and a latent accelerator capable of substantial cure at a temperature below about 325 °F and requiring exposure to a temperature in excess of about 125 °F before substantial curing is achieved.

3M's AF-42 AND AF-642 ADHESIVES

285. AF-42 and AF-642 (a 6 mil version of AF-42) are thermosetting, one-package, structural adhesives comprising an epoxy resin and a latent hardener.
286. AF-42 and AF-642 are latent curing adhesive systems capable of substantial cure at a temperature below 325°F, which require exposure to a temperature in excess of about 125°F before substantial curing is achieved, and which, when cured, have a modulus of elasticity at 85°C or at least about 10,000 psi.
287. AF-42 and AF-642 used to bond mirror buttons to glass.

SELECT MEETINGS WITH 3M

288. On or about November 26, 1991, 3M and Magna Donnelly held a meeting in or around Holland, Michigan (the “November 26, 1991 Meeting”).
289. At the November 26, 1991 Meeting, Magna Donnelly identified 3M’s AF-642 adhesive as having been tested as part of mirror button bonding research and development efforts.
290. At the November 26, 1991 Meeting, Dr. Lynam informed 3M that he had observed the use of 3M’s AF-642 adhesive, a 6 mil version of 3M’s AF-42 adhesive, in Germany to attach mirror buttons to windshields.
291. Dr. Lynam observed the use of 3M’s AF-642 adhesive in Germany to attach mirror buttons to windshields before October 1991.
292. At the November 26, 1991 Meeting, Dr. Lynam confirmed that AF-642 worked well to attach mirror buttons to windshields.
293. Dr. Lynam never told the PTO that, prior to Magna Donnelly’s filing of the ‘236 application, AF-642 was used to bond mirror buttons to glass.
294. Dr. Lynam never told the PTO that, prior to Magna Donnelly’s filing of the ‘236 application, AF-642 was an epoxy adhesive used to bond mirror buttons to glass.

295. Dr. Lynam never told the PTO that, prior to Magna Donnelly's filing of the '236 application, AF-642 was a thermosetting, one-package, structural adhesive used to bond mirror buttons to glass.
296. Dr. Lynam never told the PTO that, prior to Magna Donnelly's filing of the '236 application, AF-642 was a thermosetting, one-package, structural adhesive, being a latent curing adhesive system used to bond mirror buttons to glass.
297. Dr. Lynam never told the PTO that, prior to Magna Donnelly's filing of the '236 application, AF-642 was a thermosetting, one-package, structural adhesive, being a latent curing adhesive system requiring exposure to a temperature in excess of about 125°F before substantial curing is achieved used to bond mirror buttons to glass.
298. Dr. Lynam never told the PTO that, prior to Magna Donnelly's filing of the '236 application, AF-642 was a thermosetting, one-package, structural adhesive, being a latent curing adhesive system requiring exposure to a temperature in excess of about 125 °F before substantial curing is achieved, that when cured, has a modulus of elasticity at 85°C or at least about 10,000 psi used to bond mirror buttons to glass.
299. Dr. Lynam never told the PTO that, prior to Magna Donnelly's filing of the '236 application, AF-642 was a thermosetting, one-package, structural adhesive, being a latent curing adhesive system requiring exposure to a temperature in excess of about 125°F before substantial curing is achieved, that when cured, has a modulus of elasticity at 85°C or at least about 10,000 psi, that was non-elastomeric as that term is defined by the '236 Patent and its prosecution history used to bond mirror buttons to glass.

300. Dr. Lynam never told the PTO that, prior to Magna Donnelly's filing of the '236 application, AF-642 was a structural adhesive comprising an epoxy resin and a latent hardener used to bond mirror buttons to glass.
301. On or about February 27, 1998, 3M received a letter from Magna Donnelly, signed by Dr. Niall Lynam.
302. Dr. Lynam's February 27, 1998 Letter referred to the '236 Patent and included a copy of the '236 Patent.

COUNT I

DECLARATORY JUDGMENT OF NONINFRINGEMENT

303. 3M repeats and realleges Paragraphs 1 through 302 of its Counterclaims as if fully set forth herein.
304. 3M has not infringed, either literally or under the doctrine of equivalents, any claim of the '236 Patent.
305. 3M has not contributed to the infringement of any claim of the '236 Patent.
306. 3M has not induced the infringement of any claim of the '236 Patent.

COUNT II

DECLARATORY JUDGMENT OF INVALIDITY

307. 3M repeats and realleges Paragraphs 1 through 306f its Counterclaims as if fully set forth herein.
308. Each claim of the '236 Patent is invalid for failure to meet the conditions of patentability and failure to comply with one or more of the requirements of the Patent Laws of the United States, including without limitation 35 U.S.C. §§ 102, 103 and/or 112.

COUNT III

INEQUITABLE CONDUCT

309. The '236 Patent is unenforceable due to inequitable conduct by the applicants and their attorneys in prosecuting the '236 Patent before the PTO; in particular, the '236 Patent is unenforceable under the pleading requirements for inequitable conduct set forth by the Federal Circuit in *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276 (Fed. Cir. 2011), for at least the following reasons based on the existing record before any discovery has taken place on these issues.

FIRST ACT OF INEQUITABLE CONDUCT:

**FAILURE TO DISCLOSE THE BOARD'S DECISION ON APPEAL
DURING PROSECUTION OF THE '236 PATENT**

310. 3M repeats and realleges Paragraphs 1 through 309 of its Counterclaims as if fully set forth herein.

Who

311. The applicants and their attorneys at Price, Heneveld, Cooper, DeWitt & Litton, including at least Mark Bandy and Gunther Evanina, failed to disclose the Board's July 7, 1995 Decision on Appeal in the '236 application, or its contents.

312. The '236 application and the '236 patent both identify the applicants as Raj K. Agrawal, Niall R. Lynam and James K. Galer.

313. The law firm of Price, Heneveld, Cooper, DeWitt & Litton prosecuted both the '236 application and the '236 Patent on behalf of the applicants.

314. Attorneys Mark Bandy and Gunther Evanina of the law firm of Price, Heneveld, Cooper, DeWitt & Litton jointly prosecuted the '236 Patent on behalf of the applicants.

315. Attorney Mark Bandy of the law firm of Price, Heneveld, Cooper, DeWitt & Litton signed the appeal and reply briefs submitted on behalf of the applicants in the Appeal in the '236 application. Mark Bandy also signed the May 10, 1995 Information Disclosure Statement submitted for the '236 patent.

316. Attorney Gunther Evanina signed the March 4, 1996 Amendment A for the '236 Patent.

What

317. The applicants and their attorneys at Price, Heneveld, Cooper, DeWitt & Litton, including at least Mark Bandy and Gunther Evanina, failed to disclose the Board's July 7, 1995 Decision on Appeal in the '236 application, or its contents, at any time during the prosecution of the '236 Patent.

When

318. The applicants and their attorneys failed to disclose the Board's July 7, 1995 Decision on Appeal in the '236 application, and its contents, at any time during the prosecution of the '236 Patent. For example, the applicants and their attorneys, including at least Messrs. Bandy and Evanina, failed to disclose Board's Decision on Appeal in the '236 application, or its contents, prior to submitting the March 4, 1996 Amendment A for the '236 Patent.

Where

319. The Board's Decision on Appeal in the '236 Patent, and the Board's analysis, is found in the July 7, 1995 Decision on Appeal.

How

320. The applicants' and their attorneys' failure to disclose the Board's July 7, 1995 Decision on Appeal in the '236 application, and its contents, is material to the patentability of all claims of the '236 Patent because the examiner during the '236 Patent reexamination

rejected the claims of the '236 Patent explicitly "for the reasons stated" in the Board's July 7, 1995 Decision on Appeal (also incorporating those reasons by reference) and because the Board's July 7, 1995 Decision on Appeal refutes and/or is inconsistent with arguments that the applicants and their attorneys made in securing the claims of the '236 Patent.

321. For example, in securing the claims of the '236 Patent, the applicants and their attorneys argued that "none of the references of record teach or suggest a mirror mounting button, windshield arrangement wherein a one-package, thermosetting structural adhesive is used for adhering a mirror mounting button to a windshield," but did not tell the examiner responsible for the '236 Patent that the Board held on page 8 of its July 7, 1995 Decision on Appeal for the '236 application that:

There can be no dispute that that the time of the appellants' invention a multitude of adhesives were available, with many different specifications and characteristics, which would have provided an extensive list to one of ordinary skill in the art who was attempting to solve a problem concerning attaching elements together. The Adhesives Handbook provides a compilation of these.

322. On page 5 of the March 4, 1996 Amendment A for the '236 Patent, the applicants stated with reference to Stewart '878:

The inclusion of epoxy resins in the list of flexible thermoplastic materials which concludes with the words "and the like", suggests that the inclusion of epoxy resins (a non-elastomeric, thermosetting material) was possibly unintended and inadvertent.

323. But the applicants did not tell the examiner responsible for the '236 Patent that the Board held on page 13 of its July 7, 1995 Decision on Appeal for the '236 application that:

From our perspective, the field of adhesives is a highly developed one, and the appellants have utilized known commercial products in uses for which they were intended. Also, there is ample evidence to establish that much knowledge was available in the prior art regarding adhesively attaching

rear view mirrors to the inside surfaces of laminated vehicle windshields at the time of the appellants' invention.

324. On page 5 of the March 4, 1996 Amendment A for the '236 Patent, the applicants stated with reference to Stewart '878:

Further, it is unlikely that one of ordinary skill in the art would utilize a thermosetting structural adhesive have a modulus of elasticity of at least 10,000 psi in view of Stewart's pronounced preference for silicone rubber elastomers which typically have a modulus of elasticity below 500 psi at 85° C.

325. But the applicants did not tell the examiner responsible for the '236 Patent that the Board held on page 9 of its July 7, 1995 Decision on Appeal for the '236 application that:

From our perspective, one of ordinary skill in the art, seeking to attach a mirror of greater weight than previously has been attached, would have found it obvious to utilize an adhesive meeting the limitations set forth in step (c) of claim 23. One of ordinary skill in the art must be accorded sufficient knowledge to have recognized that an adhesive that is to be cured simultaneously with the process of laminating the windshield layers must have a thermal activation temperature that is higher than the ambient temperatures expected prior to the curing process, or else it would cure prematurely. In like fashion, the artisan would have recognized that the cure temperature for the attachment adhesive must not exceed that of the windshield lamination process, or else it would not be cured simultaneously therewith. Finally, following the same logic, one of ordinary skill in the art would have selected an adhesive having a modulus of elasticity that would render it capable of accomplishing the task of holding a particular accessory to the degree necessary for a particular application, whether for the broad purpose of holding a heavy load or for a more specific purpose, such as Stewart's [sic, Stewart's] breakaway situation.

326. The applicants stated on page 5 of the March 4, 1996 Amendment A for the '236 Patent:

In view of the foregoing, it is respectfully submitted that one having ordinary skill in the art would perceive a pronounced preference for elastomeric, or at least flexible thermoplastic adhesives, and an aversion to the thermosetting adhesives as set forth in the claims.

327. But the applicants did not tell the examiner responsible for the '236 Patent that the Board held on pages 9-10 of its July 7, 1995 Decision on Appeal for the '236 application that:

In the final analysis, we agree with the examiner that the selection of a suitable adhesive to improve upon those used in the prior art, including that which was specified in claim 23, would have been obvious to one of ordinary skill in this art, in view of the combined teachings of the cited references. There is no evidence of record that tends to indicate that the use of the adhesive specified in step (c) of claim 23 provides an unexpected result. Thus, we conclude that the teachings of the prior art establish a prima facie case of obviousness with regard to the subject matter of claim 23, and we will sustain the examiner's rejection.

Knowledge

328. The applicants and their attorneys knew of the Board's July 7, 1995 Decision on Appeal for the '236 application prior to submitting the March 4, 1996 Amendment A for the '236 Patent.
329. The applicants and their attorneys knew the contents of the Board's July 7, 1995 Decision on Appeal for the '236 application prior to submitting the March 4, 1996 Amendment A for the '236 Patent, and that they were material.

Specific Intent to Deceive

330. During the period of time in which the '236 Patent was pending, the applicants and their attorneys were aware of joint development efforts with 3M. In fact, the applicants claim to have disclosed the subject matter of the '236 Patent to 3M in November 1991.
331. The applicants and their attorneys were aware that 3M's mirror button attachment technology made its US debut in early 1995 on the Ford Mustang.
332. At the time 3M's mirror button attachment technology made its US debut in early 1995, the applicants and their attorneys were aware that they had still not obtained patent protection for the subject matter of the '236 Patent.
333. The applicants and their attorneys were aware that on October 4, 1995, the examiner responsible for the '236 Patent issued an Office Action rejecting all pending claims under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 3,131,251 to Ryan in view of

U.S. Patent No. 4,254,931 to Aikens et al., U.S. Patent No. 4,593,878 to Stewart and the ADHESIVES HANDBOOK, all of which the Board addressed in its July 7, 1995 Decision on Appeal for the '236 application, and that such Office Action was material.

334. The applicants and their attorneys knew that if they disclosed the Board's July 7, 1995 Decision on Appeal for the '236 application to the examiner responsible for the '236 Patent, the examiner would have maintained his rejections and not allowed the claims of the '236 Patent to issue.
335. The single most reasonable inference to be drawn from the foregoing facts is that the applicants and their attorneys made a deliberate decision to withhold the Board's July 7, 1995 Decision on Appeal for the '236 application during prosecution of the '236 Patent with the specific intent to deceive the PTO.
336. But for the applicants and their attorneys failure to disclose the Board's July 7, 1995 Decision on Appeal for the '236 application during the examiner would have maintained his rejections and not allowed the claims of the '236 Patent to issue.

SECOND ACT OF INEQUITABLE CONDUCT:

**FAILURE TO DISCLOSE KNOWN, PRE-FILING USE OF 3M'S EPOXY ADHESIVE
TO MOUNT MIRROR BUTTONS IN EUROPE**

337. 3M repeats and realleges Paragraphs 1 through 336 of its Counterclaims as if fully set forth herein.

Who

338. The applicants and, specifically, Dr. Lynam.

What

339. The applicants, and specifically Dr. Lynam, knew of the use of 3M's epoxy adhesive in Europe to attach mirror buttons to windshields.

When

340. The applicants, and specifically Dr. Lynam, failed to disclose to the PTO pre-October 1991 knowledge of use of 3M's epoxy adhesive in Europe to attach mirror buttons at any time during prosecution of the '236 application and the '236 Patent, including the reexamination.

Where

341. The applicants, and specifically Dr. Lynam, failed to disclose at any time during prosecution of the '236 application and '236 Patent that prior to filing the '236 application, that Dr. Lynam personally observed and knew of the use of 3M's epoxy adhesive in Europe to attach mirror buttons to windshields.

How

342. The applicants' and their attorneys' failure to disclose the prior use of 3M's epoxy adhesive in Europe to attach mirror buttons to windshields is material to the patentability of all claims of the '236 Patent because the examiner issued the '236 Patent over prior art disclosing the use of PVB and silicone to adhere mirror buttons to windshields but without knowledge of the prior use of 3M's epoxy to do so; because the Board in its Decision on Appeal dated January 5, 2010 relied on "rebuttal evidence" "comparing what is characterized as unexpectedly superior properties of an epoxy adhesive comprising an epoxy resin and a latent hardener relative to an elastomeric PVB or silicone resin," but without knowledge of the prior use of 3M's epoxy adhesive to attach a mirror button to an automobile windshield, in reissuing an otherwise invalid patent; and, because their knowledge of the use of 3M's epoxy adhesive in Europe to attach mirror buttons to windshields refutes and/or is inconsistent with statements that the applicants made in arguing for patentability of the claims of the '236 application and '236 Patent.

343. For example, the applicants argued that the use of a thermosetting, one-package, structural adhesive comprising an epoxy resin and a latent hardener to bond mirror buttons to a windshield was novel and patentable; however, the applicants, and particularly Dr. Lynam, were aware of the use of 3M's epoxy adhesive—a thermosetting, one-package, structural adhesive comprising an epoxy resin and a latent hardener—to bond mirror buttons to windshields in Europe.
344. To provide another example, applicants' statement during prosecution of the '236 Patent that "it is unlikely that one having ordinary skill in the art would utilize a thermosetting structural adhesive having a modulus of elasticity of at least 10,000 psi in view of Stewart[]" is refuted by Dr. Lynam's knowledge of the prior use of 3M's thermosetting epoxy adhesive having such a modulus of elasticity to attach mirror buttons to windshields.
345. Further, Dr. Lynam's knowledge of the use of 3M's thermosetting, one-package, structural adhesive comprising an epoxy resin and a latent hardener adhesive in Europe to attach mirror buttons to windshields refutes and/or is inconsistent with his statement in the Declaration that he filed with the '236 application stating that he "believe[d] [he was] ... an original, first and joint inventor of the subject matter which is claimed" in the '236 application and '236 Patent.
346. Further, Dr. Lynam's knowledge of the use of 3M's thermosetting, one-package, structural adhesive comprising an epoxy resin and a latent hardener adhesive in Europe to attach mirror buttons to windshields refutes and/or is inconsistent with the statement on page 23 in Magna Donnelly's Appeal Brief during the '236 Patent reexamination that "[t]here would not have been any reasonable expectation of success to one of ordinary

skill in the art to make the combination set forth in the Office Action” based on their claim that “[c]onventional wisdom was to use an elastomeric PVB or silicone rubber adhesive to attach a mirror mounting button to a windshield.”

347. Further, the prior use of 3M’s thermosetting, one-package, structural adhesive comprising an epoxy resin and a latent hardener adhesive in Europe to attach mirror buttons to windshields refutes and/or is inconsistent with the statement on page 31 of Magna Donnelly’s Appeal Brief during the ‘236 Patent reexamination that, “[t]hus, out of the thousands and thousands of adhesive compounds, a reasonable person of ordinary skill in the art, when faced with the problem of selecting an adhesive for an application such as set forth in the claims of the ‘236 patent, would likely select or screen the subset of elastomeric adhesive compositions that were at that time known to adhere mirror mounting buttons to glass windshields.”
348. Further, the prior use of 3M’s thermosetting, one-package, structural adhesive comprising an epoxy resin and a latent hardener adhesive in Europe to attach mirror buttons to windshields refutes and/or is inconsistent with the statement on page 32-33 in the Appeal Brief:

Because the selected and claimed adhesive comprises a specified non-elastomeric structural adhesive, it would not have been obvious to one of ordinary skill in the art to use such an adhesive for attaching a mirror mounting button to a glass windshield (a use for which the non-elastomeric aerospace adhesive clearly was not intended), since to use such a non-elastomeric adhesive would go against the conventional wisdom at the time of using an elastomeric PVB adhesive or an elastomeric silicone rubber adhesive for attaching a mirror mounting button to a glass windshield. Nor would there have been any reasonable expectation of success (absent the non-routine extensive testing and disclosure set forth in the '236 patent) in using such a non-elastomeric structural adhesive in such a mirror mounting button to windshield attachment application.

349. Further, Dr. Lynam's knowledge of the prior use of 3M's thermosetting, one-package, structural adhesive comprising an epoxy resin and a latent hardener adhesive in Europe to attach mirror buttons to windshields refutes and/or is inconsistent with the statement on page 58 in Magna Donnelly's Appeal Brief during the '236 Patent reexamination that there is a "[l]ong felt need and failure by others" because "[c]onventional wisdom as of 1991 was to use an elastomeric PVB or silicone rubber adhesive composition for adhering mounting buttons to windshields."
350. Further, Dr. Lynam's knowledge of the use of 3M's thermosetting, one-package, structural adhesive comprising an epoxy resin and a latent hardener adhesive in Europe to attach mirror buttons to windshields refutes and/or is inconsistent with the following statements from Mr. Linn and Mr. Lynam during oral argument before the Board during the '236 Patent reexamination:

Now the prior art: What we have here, and I'll get into this a little bit more, the Patent claims are directed to an assembly that is -- generates a cured state adhering a windshield or windshield button to a windshield glass. This is not, as it's characterized in the Examiner's position, merely reaching out and selecting an adhesive. This is not just about an adhesive. This is a collection of parameters, which together create an assembly that has a cured state of bonding that provides something new and different that was ever seen or done before. What the prior art reflects is selections of PVB adhesive and silicone adhesive. We're talking rubbery, cushioned, elastomeric-type prior art.

In this instance, the particular adhesive was an existing adhesive. It's not a claim here that the Agrawal inventors invented an adhesive. But there are literally thousands, many thousands of adhesives that were in existence. It's not just a small selection where you just grab two or three and just try a couple and see if it works.

How did we get here? In the evidence that was made of record through Dr. Lynam's affidavit, back in the early to mid-'90s, Agrawal, et al., realized there was this longstanding problem, difficulty with adhering this metal to glass and creating a bond that would withstand the rigors of the vibrations, whatever, what you have, that an automobile experiences as you travel on the road.

This solution, this utilization of an aerospace adhesive, 3M's own aerospace adhesive, was a big surprise, a big, happy surprise back in 1990 to 3M itself. Remember, 3M itself, if you look in the specification, Your Honors, you'll see there is an AF-42 is also an epoxy. It's an epoxy made by 3M, still made by 3M in their automotive group. It was right -- they did not make the connection. They did not understand, if you like, putting together the various bits and pieces.

To address Judge Spiegel's questions from a different tack, if you were to look to the art, and you -- practitioner look to the automotive rearview mirror art, you're going to see the rubbery, elastomeric approach of the silicone PVB whether it be Ono or Stewart. And if the idea is to get greater weight and a stronger bond, you're going to go out and try to find stronger, better silicones, PVBs, elastomeric-type bonds that will perform in the fashion that you are trying to achieve as opposed to saying, "Well, check all that. We're going to go back and we're just going to start over. And we got to find something new. And we assume we'll find something new." Well, at some point, you say, well, yes that's invention. We're not building on what the prior art discloses and trying to improve the prior art. No. We're going to take a giant step away and just start over.

Knowledge

351. Dr. Lynam represented to 3M that he had observed the use of 3M's thermosetting, one-package, structural adhesive comprising an epoxy resin and a latent hardener in Europe to bond mirror buttons to windshields.

Specific Intent to Deceive

352. On information and belief, the applicants, and particularly Dr. Lynam, knew that but for their failure to disclose to the PTO Dr. Lynam's knowledge of the pre-October 1991 use of 3M's thermosetting, one-package, structural adhesive comprising an epoxy resin and a latent hardener for mirror button applications in Europe, the '236 Patent would not have issued in the first place, nor would it have reissued after the reexamination proceeding .
353. The applicants, and particularly Dr. Lynam, failed to disclose their knowledge of the pre-October 1991 use of 3M's thermosetting, one-package, structural adhesive comprising an epoxy resin and a latent hardener for mirror button applications in Europe to the PTO during prosecution of the '236 Patent and while the reexamination proceedings were ongoing.
354. The applicants, and Dr. Lynam, made a deliberate decision to withhold their knowledge of the pre-October 1991 use of 3M's thermosetting, one-package, structural adhesive comprising an epoxy resin and a latent hardener for mirror button applications in Europe with the specific intent to deceive the PTO, and they knew that the prior use of this 3M adhesive was material.
355. In the alternative, the applicants' and their attorneys' affirmative attempts to distinguish cited prior art references and other affirmative misrepresentations concerning the scope of the prior art, such as those identified in ¶¶ 343-350 during the prosecution of the '236 Patent uninhibited by the factual constraints that would have been imposed had the PTO been informed of the prior use of the pre-October 1991 use of 3M's thermosetting, one-package, structural adhesive comprising an epoxy resin and a latent hardener for mirror button applications in Europe are material because they rise to the level of egregious acts of affirmative misconduct.

THIRD ACT OF INEQUITABLE CONDUCT:

**AFFIRMATIVE MISREPRESENTATIONS DURING THE ‘236 PATENT
REEXAMINATION THAT 3M’S 9214 ADHESIVE IS COVERED BY THE CLAIMS OF
THE ‘236 PATENT**

356. 3M repeats and realleges Paragraphs 1 through 355 of its Counterclaims as if fully set forth herein.

Who

357. Magna Donnelly, the appellant in the ‘236 reexamination before the Board, the applicants, and particularly, Dr. Lynam, and their attorneys at the law firm of Van Dyke, Gardner, Linn & Burkhart, LLP, who represented Magna Donnelly during the ‘236 Patent reexamination.

What

358. Magna Donnelly, the applicants, and particularly, Dr. Lynam, and their attorneys at the law firm of Van Dyke, Gardner, Linn & Burkhart, LLP, misrepresented to the PTO that 3M’s 9214 adhesive is covered by the claims of the ‘236 Patent, including at least each of the independent claims, and/or that 3M’s 9214 adhesive includes the same characteristics as the adhesive claimed in the ‘236 Patent, including in at least claim 1.

When and Where

359. Magna Donnelly, the applicants, and particularly, Dr. Lynam, and their attorneys misrepresented that 3M’s 9214 adhesive is covered by the claims of the ‘236 Patent, including at least each of the independent claims, and/or that 3M’s 9214 adhesive includes the same characteristics as the adhesive claimed in the ‘236 Patent, including in at least claim 1, during the ‘236 Patent reexamination.

How

360. The misrepresentations that 3M's 9214 adhesive is covered by the claims of the '236 Patent, including at least each of the independent claims, and/or that 3M's 9214 adhesive includes the same characteristics as the adhesive claimed in the '236 Patent, including in at least claim 1 were material to the reissue – and patentability – of the claims in the '236 Patent because – after affirming the examiner's finding of a prima facie case of obviousness of the '236 Patent – the Board in its Decision on Appeal dated January 5, 2010 found that the alleged commercial success of the claimed invention of the '236 Patent, which was based solely on these misrepresentations, was not properly considered by the examiner. This evidence of commercial success of the '236 Patent based on these misrepresentations resulted in the reissue of the '236 Patent even though there was a prima facie case of obviousness.
361. 3M's 9214 adhesive is not covered by any claims of the '236 patent. First, each of the claims of the '236 patent requires at least a windshield. Magna Donnelly, the applicants, and their attorneys knew that 3M did not sell windshields, and, therefore, 3M's sales of its 9214 adhesive, even in combination with mirror buttons, could not be covered by any claims of the '236 Patent. Moreover, the independent claims of the '236 Patent require specified characteristics of the claimed adhesive, including but not limited to a modulus of elasticity, when cured, at 85 degrees C. of at least about 10,000 psi. 3M's 9214 adhesives do not include such characteristics, and Magna Donnelly has admitted in this litigation – well after the misrepresentations to the PTO during reexamination – that Magna Donnelly has not tested the 3M 9214 adhesive to determine its particular characteristics, such as modulus of elasticity.

362. Magna Donnelly, the applicants, and/or their attorneys stated on page 67 of their Appeal Brief to the Board during the '236 Patent reexamination that "the sales made by 3M were a direct result of the unique characteristics of the claimed '236 patent invention"; however, the 3M 9214 adhesive does not contain such features, such as the claimed modulus of elasticity, and Magna Donnelly has admitted that the 3M adhesive has never even been tested to determine such characteristics.
363. Further, their statement on Page 20 of the Reply Brief to the Board during the '236 Patent reexamination states that 3M "uses the superior vibration performance of [its] mirror button mounting system that is in accordance with the '236 Patent in comparison to the inferior performance achieved using a silicone adhesive in its promotion and selling of 3M's Mirror Button Mounting System that utilizes the '236 Patent." On pages 22-23 of that brief, applicants further argue that 3M's 9214 adhesive is covered by specific claims of the '236 patent, including claim 1. Finally, on page 27 of that Reply Brief, applicants state "the product sold corresponds to the claimed invention and that the commercial success is attributable to the product defined by the claims." 3M, however, does not sell a mirror button system that utilizes the '236 patent because, *inter alia*, 3M does not sell a windshield as required by each independent claim. Moreover, 3M's 9214 adhesive does not contain the claimed features of the adhesive, such as the modulus of elasticity limitations, and Magna Donnelly admits that it still has not tested the 3M adhesive for such characteristics.
364. Further, the fact that 3M's 9214 adhesive does not meet the claimed characteristics of the adhesive claimed by the '236 Patent, including for example the modulus of elasticity limitation, combined with Magna Donnelly's admission in this litigation that it still has

not tested 3M's 9214 adhesive for such characteristics, refutes and/or is inconsistent with the Mr. Lynam's statement during oral argument before the Board during the '236 Patent reexamination that "3M adopted it and used it verbatim."

Knowledge

365. Magna Donnelly, the applicants, and their attorneys knew that 3M's 9214 adhesive could not be covered by any claims of the '236 Patent because it does not include each of the claimed limitations, such as a windshield. Moreover, they did not know or had no evidence that 3M's 9214 adhesive included the characteristics of the adhesive claimed in the '236 Patent, including but not limited to the modulus of elasticity limitation, because they admit that even as of the time Magna Donnelly served its infringement contentions in this litigation – well after its misrepresentations to the PTO – that it still had not tested 3M's 9214 adhesive for the claimed characteristics required by the '236 Patent.

Specific Intent to Deceive

366. Magna Donnelly, the applicants, and their attorneys made their misrepresentations to the PTO because they knew that the PTO would rely on their claim that the 9214 adhesive had characteristics identical to the adhesive claimed by the '236 Patent as evidence of commercial success to rebut the examiner's prima facie case of obviousness. Accordingly, they knew that the misrepresentations were material.
367. Magna Donnelly, the applicants, and their attorneys misrepresented that 3M's 9214 adhesive was covered by the claims of the '236 Patent, including at least the independent claims, with a specific intent to deceive the PTO.

368. But for their misrepresentations concerning 3M's 9214 adhesive, the examiner's rejection of the '236 Patent for obviousness would have been affirmed by the Board, and the '236 Patent not have reissued during reexamination.

369. In the alternative, Magna Donnelly's, the applicants', and their attorneys' misrepresentations to the PTO in this regard are material because they rise to the level of affirmative acts of egregious misconduct.

FOURTH ACT OF INEQUITABLE CONDUCT:

**AFFIRMATIVE EGREGIOUS MISCONDUCT DURING THE '236 PATENT
REEXAMINATION REGARDING KNOWLEDGE OF THE EXAMINER**

370. 3M repeats and realleges Paragraphs 1 through 369 of its Counterclaims as if fully set forth herein.

Who

371. Dr. Lynam submitted Exhibit A to his December 28, 2007 declaration to the PTO on behalf of the patent owner and, among others, participated in the December 13, 2007 examiner interview for the '236 Patent reexamination at which Exhibit A was discussed.

What

372. At least Slides 19 and 26 of Exhibit A to Dr. Lynam's December 28, 2007 declaration to the PTO for the '236 Patent reexamination, discussed during the December 13, 2007 examiner interview, affirmatively misrepresent that the examiner responsible for the '236 Patent prosecution—a different examiner than the examiner responsible for the '236 Patent reexamination—"clearly was aware of the 07/773,236 parent" and "would also be aware of the appeal & abandonment thereof."

373. Dr. Lynam's Slides 19 and 26 of Exhibit A to Dr. Lynam's December 28, 2007 declaration to the PTO for the '236 Patent reexamination circle rejections in the October

4, 1995 Office Action for the '236 Patent, underline the words "preceding rejection," and then affirmatively misrepresent to the PTO that "[t]he preceding rejection was in the 07/773,236 Parent application - so the Examiner here plainly was familiar with the Prosecution History of the parent application" and "would also be aware of the appeal & abandonment thereof."

374. The "preceding rejection" referred to on Slides 19 and 26 of Exhibit A to Dr. Lynam's December 28, 2007 declaration for the '236 Patent reexamination, however, was directly prior to the quoted rejection in the October 4, 1995 Office Action for the '236 Patent, and is not in any office action in the parent '236 application.

When

375. Dr. Lynam affirmatively misrepresented the '236 Patent examiner's knowledge of the Board's July 7, 1995 Decision on Appeal for the '236 application during at least the December 13, 2007 examiner interview and in submitting Exhibit A to the December 28, 2007 Lynam Declaration during the '236 Patent reexamination proceedings.

Where

376. Dr. Lynam's affirmative misrepresentation the '236 Patent examiner's knowledge of the Board's July 7, 1995 Decision on Appeal for the '236 application can be found on at least Slides 19 and 26 of Exhibit A to the December 28, 2007 Lynam Declaration for the '236 Patent reexamination, which was discussed during at least the December 13, 2007 examiner interview.

How

377. Dr. Lynam's misrepresentations regarding the '236 Patent examiner's knowledge of the Board's July 7, 1995 Decision on Appeal for the '236 application during the reexamination proceedings are material to all claims of the '236 Patent by law because

they were made in a declaration submitted to the PTO in arguing for the patentability of the '236 Patent claims.

378. Dr. Lynam's misrepresentations are material to all claims of the '236 Patent because they are a direct attempt to circumvent the Board's July 7, 1995 Decision on Appeal for the '236 application, which the PTO specifically found to create a substantial new question of patentability for all of the reexamined claims and on which the '236 Patent reexamination examiner relied on in repeatedly rejecting the reexamined claims.

Knowledge

379. Dr. Lynam knew that his representations to the PTO in at least Exhibit A of his December 28, 2007 declaration for the '236 Patent reexamination that the "preceding rejection was in the 07/773,236 Parent application" and that "the Examiner here was plainly familiar with the Prosecution History of the parent application" were false.
380. Slides 19 and 26 of Exhibit A to Dr. Lynam's December 28, 2007 declaration to the PTO for the '236 Patent reexamination was created to arrange the alleged "evidence" in such a way as to mislead the examiner.

Intent to deceive

381. Dr. Lynam knew at the time he made the misrepresentations in Exhibit A of his December 28, 2007 declaration for the '236 Patent reexamination that his statements were false.
382. Dr. Lynam acknowledges in Paragraph 65 of his December 28, 2007 declaration for the '236 Patent reexamination that "I understand that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001, and that such willful statement may jeopardize the validity of United States Patent No. 5, 587,236."

383. Dr. Lynam affirmatively made the accused representations to the PTO in an attempt to overcome the '236 Patent reexamination examiner's rejection of claims over the Board's July 7, 1995 Decision on Appeal for the '236 application.
384. Neither the patent owner (Magna Donnelly), nor any person associated with the patent owner, including Dr. Lynam, informed the PTO of the misrepresentations on Slides 19 and 26 of Exhibit A to the December 28, 2007 Lynam Declaration during the '236 Patent reexamination.

Affirmative Misconduct

385. Slides 19 and 26 were prepared by affirmatively selecting and omitting portions of a single office action.
386. Both the highlighting of the selected portions and the insertion of the statement "[t]he preceding rejection was in the 07/773,236 Parent application - so the Examiner here plainly was familiar with the Prosecution History of the parent application" and "would also be aware of the appeal & abandonment thereof" were deliberately included in slides 19 and 26.

Egregious Misconduct

387. Dr. Lynam's intentional presentation of false statements represents a deliberate intent to deceive the Patent Office.
388. Regardless of Dr. Lynam's success in deceiving the Patent Office, the mere intentional inclusion of false information is egregious misconduct, particularly when such misconduct occurs during an *ex parte* proceeding, and where the false statements are included in a declaration.

PRAYER FOR RELIEF

389. WHEREFORE, 3M respectfully requests that this Court enter judgment in its favor and against Magna Donnelly, and grant the following relief:

- (A) dismiss Magna Donnelly's Complaint with prejudice;
- (B) adjudge that 3M has not infringed, contributed to the infringement of, or induced the infringement of any claim of the '236 Patent;
- (C) adjudge each and every claim of the '236 Patent invalid;
- (D) adjudge the '236 Patent unenforceable due to inequitable conduct;
- (E) enjoin Magna Donnelly, its agents, servants, employees, and attorneys and all persons in active concert or participation with it, from directly or indirectly charging infringement or instituting any further action for infringement of any claim of the '236 Patent against 3M;
- (F) adjudge that this case is exceptional against Magna Donnelly pursuant to 35 U.S.C. § 285 and award 3M its reasonable attorneys' fees, expenses and costs incurred in this action; and
- (G) grant 3M such other and further relief as this Court deems just and proper.

DEMAND FOR JURY TRIAL

390. Pursuant to Fed. R. Civ. P. 38(b), 3M respectfully demands a trial by jury of all issues triable by a jury relating to the Counterclaims.

Dated: January 9, 2012

/s/ Deborah Pollack-Milgate

BARNES & THORNBURG LLP
Felicia J. Boyd
225 South Sixth Street, Suite 2800
Minneapolis, MN 55402
Telephone: (612) 333-2111
fboyd@btlaw.com

Donald E. Knebel
Deborah Pollack-Milgate
Aaron M. Staser
Michael R. Brunelle
11 South Meridian Street
Indianapolis, IN 46204-3535
Telephone: (317) 236-1313
dknebel@btlaw.com
dpollackmilgate@btlaw.com
astaser@btlaw.com
mbrunelle@btlaw.com

JAFFE, RAITT, HEUER & WEISS PC
Jeffrey G. Heuer (P14925)
27777 Franklin Road, Suite 2500
Southfield, MI 48034
Telephone: (248) 351-3000
jheuer@jaffelaw.com

Peter M. Falkenstein (P61375)
201 S. Main Street, Suite 300
Ann Arbor, MI 48104
pfalkenstein@jaffelaw.com

Attorneys for Defendant 3M Company

CERTIFICATE OF SERVICE

I hereby certify that on January 9, 2012, a copy of the foregoing was filed electronically. Notice of this filing will be sent to counsel of record by operation of the Court's electronic filing system. Parties may access this filing through the Court's system.

/s/ Deborah Pollack-Milgate